# Official Transcript of Proceedings

# NUCLEAR REGULATORY COMMISSION

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NUCLEAR REGULATORY COMMISSION

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PUBLIC MEETING ON

FINANCIAL QUALIFICATIONS FOR

MERCHANT PLANT COMBINED LICENSE APPLICANTS

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TUESDAY

JANUARY 8, 2013

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The public meeting convened in Room T-6A1, Two White Flint North, 11545 Rockville Pike, Rockville, Maryland, Room T-6A1, Russell Chazell moderator, presiding.

NRC STAFF PRESENT

RUSSELL CHAZELL, Moderator

PAT CASTLEMAN

AMY CUBBAGE

JONATHAN DEGANGE

MICHAEL DUSANIWSKYJ

RONALDO JENKINS

JOHN JOLICOEUR

JOCELYN LIAN

EARL LIBBY

MIKE MAYFIELD

HO NIEH

ANNELIESE SIMMONS

MICHAEL SPENCER

TOM TAI

RICHARD TURTIL

SUSAN UTTAL

ALSO PRESENT

GARY BECKER, NuScale Power*

MIKE CAVERLY, PPL

ANNE COTTINGHAM, NEI

MARK FINLEY, UniStar

STEVEN FRANTZ, Morgan and Lewis

BILL FREEBAIRN, Platts

GREG GIBSON, UniStar

HELEN GINSBERG, NEI

KENNETH HANSEN, Chadbourne & Parke

SCOTT HEAD, NINA

DEBBIE HENDELL, UniStar

JOHN MATTHEWS, Morgan and Lewis

TIM MATTHEWS, Morgan and Lewis

MARK MCBURNETT, NINA

DAVID REPKA, Winston & Strawn

AMY ROMA, Hogan Lovells

JIM SALDARINI, Bechtel and Generation mPower*

TERRY SENSUE, Holtec International*

JEFF SIMMONS, Luminant

* via teleconference

C-O-N-T-E-N-T-S

P-R-O-C-E-E-D-I-N-G-S

8:01 a.m.

MR. CHAZELL: Okay. Why don't we go ahead and get started? Good morning and welcome to the Nuclear Regulatory Commission.

This public meeting is a discussion of financial qualifications for merchant plant combined license applicants.

The meeting is scheduled to end at noon today. I am Russ Chazell, a project manager in the policy branch of the Division of Advanced Reactors and Rule Making in the Office of New Reactors.

I have a few announcements before we begin. One, this is a Category II public meeting. The public is invited to participate in this meeting by providing comments and asking questions near the end of the meeting.

Two, please sign the attendance roster near the door either now or after the meeting. This roster will be part of the official agency record.

Postage paid feedback forms are next to the attendance roster. Please complete them during the meeting or take them with you to mail back later. We value your opinion and will use your input for improvements.

Meeting handouts are over here by the door. There will be a meeting summary for this meeting and all handouts will be available in ADAMS.

This meeting is also attended by toll-free audio teleconference. If there are attendees on the line please identify yourselves now for the record.

Do we have anyone on the line?

MR. SALDARINI: Yes. This is Jim Saldarini from Bechtel Power. Today I'm representing both Bechtel and Generation mPower.

MR. CHAZELL: Thank you.

MR. BECKER: This is Gary Becker with NuScale Power.

MR. CHAZELL: Thank you.

MR. SENSUE: Yes. My name is Terry Sensue. I'm the licensing manager here at Holtec International.

MR. CHAZELL: Thanks, Terry. Anyone else? Okay. We'll go on then.

If you hear fire alarms please exit the building through the lobby. We'll escort you down, in that case.

Restrooms are located outside this conference room and right around the corner. Now, let's get started by laying out the plan for today's meeting.

The purpose for today's meeting is to seek stakeholder input regarding the financial qualification requirements of 10 CFR 50.33(f) as applied to merchant plant combined license applicants.

The NRC is considering a full range of alternatives regarding financial qualifications for merchant plant COL applicants.

This meeting will focus on these industry - on the industry-proposed alternative of using license conditions to meet financial qualification requirements. License conditions have been proposed by the Nuclear Energy Institute and other interested stakeholders.

We'll start with NEI and other industry stakeholders providing us with their perspective and recommendations.

Then we'll have a short break and after the break we'll start our round table discussion of the issue.

When speaking please identify yourself and your affiliation and speak loudly enough for all to hear. We have some microphones available on the table here.

Lastly, we have a transcriptionist present so that a record of our discussion will be available for future reference.

After the break a round table discussion between industry stakeholders and the NRC staff will then receive public's comments.

And at this time I'd like to turn the floor over to Mr. Ho Nieh, division director in the Office of Nuclear Reactor Regulation.

MR. NIEH: Okay. Thank you, Russ. Good morning. As Russ mentioned, I'm Ho Nieh.

I'm the director of Division of Inspection and Regional Support in the Office of Nuclear Reactor Regulation.

I'm joined by my colleagues here in the Office of New Reactors as well as other NRR colleagues and we have representatives from our Office of General Counsel and we'll cover our introductions just after a few brief remarks here.

As Russ mentioned, the purpose of today's meeting is to have some dialogue with the industry, in particular regarding the proposal in your November 13, 2012, letter regarding a license condition proposal for merchant plant financial qualifications for combined license applications.

As Russ mentioned, we are evaluating this proposal in the letter as well as other options to address the issue regarding financial qualifications for merchant plants. So we're very interested in further understanding the proposal.

The NRC staff has not yet made any decisions on the matter but we are considering it and we do expect to provide our views to the Commission on this particular matter.

So with that, I'd like to start with the introductions of the NRC representatives at the meeting. Again, I'm Ho Nieh from the Office of Nuclear Reactor Regulation.

MR. CHAZELL: Russ Chazell, NRO.

MR. DEGANGE: Jonathan DeGange, NRO.

MR. SPENCER: Michael Spencer, OGC.

MR. LIBBY: Earl Libby, NRO.

MR. CAVERLY: Mike Caverly with PPL.

MR. GIBSON: Greg Gibson, UniStar.

MR. REPKA: David Repka with Winston & Strawn.

MS. GINSBERG: Ellen Ginsberg, NEI.

MR. J. MATTHEWS: John Matthews from Morgan Lewis here as counsel to Nuclear Innovation North America.

MR. HANSEN: Ken Hansen from Chadbourne &

Parke.

MS. SIMMONS: Anneliese Simmons from NRO.

MS. CUBBAGE: Amy Cubbage, NRO.

MR. DUSANIWSKYJ: Michael Dusaniwskyj, NRR.

MR. TURTIL: Richard Turtil, NRR.

MR. JOLICOEUR: John Jolicoeur, NRR.

MR. WINTER: Rick Winter, NRO.

MS. HENDELL: Debbie Hendell, UniStar.

MR. FINLEY: Mark Finley, UniStar.

MR. T. MATTHEWS: Tim Matthews, Morgan Lewis.

MR. FRANTZ: Steve Frantz, Morgan Lewis.

MR. SIMMONS: Jeff Simmons, Luminant.

MR. MCBURNETT: Mark McBurnett, Nuclear Innovation North America.

MS. COTTINGHAM: Anne Cottingham, NEI.

MR. HEAD: Scott Head, Nuclear Innovation North America.

MR. MAYFIELD: I'm Mike Mayfield, NRO. Sorry. Late as usual.

MR. NIEH: Well, that would conclude any opening remarks that the NRC staff has. With that, I'd like to turn it over to Ellen for industry's presentations. Thank you.

MS. GINSBERG: Thanks very much. In the interest of redundancy here, I am Ellen Ginsberg.

I'm vice president, general counsel and secretary for the Nuclear Energy Institute and I would like to start by expressing our sincere appreciation to Mike and to Ho and Russ and others, members of the NRC staff, for providing the industry with this opportunity to offer further perspectives on the issues associated with financial qualifications of non-electric utility COL applicants.

Additionally, I'd like to commend Anneliese and the NRC staff for providing us with specific questions which will enable us to focus our presentations this morning on those specific issues of greatest interest to the NRC staff.

We intend to fully address those issues as we go through our material. Being the representatives of the nuclear industry and believing in defense in depth we provide - we are providing written material in addition to our oral commentary so that you will have a written expression of our views on the questions that you've identified.

In addition, there are other pieces of written material so that there will be several ways that you can remind yourself of our views.

To explain how satisfaction of the financial qualification license condition would meet the regulatory requirements, we've specifically developed for your consideration a document that I'll call a matrix and it should be over on the table.

It looks like this. It's a table of sorts and we thought it would be useful because it specifically matches the requirements of 5033 and Appendix C with our view of how they would be met by a license condition.

As I mentioned, this document should help illuminate why we believe that this is an appropriate means of addressing the issue at hand.

So moving to our presentation, it will consist of four segments this morning. In addition to what I will provide as a short introduction and overview - there we go - Mr. Hansen will provide a brief, what I'll describe as a tutorial on project finance and how it will assure the availability of adequate funding for construction and operation.

Although I've had to significantly truncate Mr. Hansen's CV, I think it's sufficient to say that he's a nationally renowned expert in structuring, negotiating and implementing domestic and international project financing with a particular focus on energy projects.

So we're very fortunate to have him here and just to give you a little more detail, in addition to his practice with the law firm of Chadbourne & Parke, which is also a nationally known law firm, he's been an adjunct professor at Georgetown Law School where he's taught project finance for over two decades.

In addition, perhaps his highest accolade is that he at some point taught at the Fletcher School of Law and Diplomacy, which I'm a graduate of Tufts so I find that particularly impressive.

In addition to Mr. Hansen, you can see that I have two other members of the nuclear bar with me with whom you are undoubtedly familiar - Mr. Matthews of Morgan Lewis and Mr. Repka if Winston & Strawn - and I've asked them to address many of the other areas of concern that were identified by the staff, specifically John will highlight the legal bases which we believe will support the option of a financial qualifications condition in these circumstances.

And Dave Repka will explain how the industry proposes to in effect close out the license condition. Next slide.

So perhaps the best way to begin the substantive discussion here is to clearly articulate what we see as the problem - to identify the problem statement.

And our view is that NRC regulations require an applicant to demonstrate that it possesses or has reasonable assurance of obtaining the funds necessary to cover construction costs and the related fuel costs.

But in the context of a non-electric utility applicant - we're talking effectively about a merchant applicant - that funding is not likely to be committed unless the COL has been issued.

So this literally creates an issue of timing. A demonstration can be made at the time of licensing and the funds will be available before construction.

Simply put, the applicant needs the COL to obtain the funding and reasonable assurance of funding is necessary to obtain a COL. What a system.

While this issue may only affect right now the applicants here represented, it will in effect be a problem for all non-electric utility applicants who can only obtain committed financing once the COL is in hand.

As such, we believe it's a generic issue and if not properly resolved could literally and unnecessarily impede the licensing of any new merchant generator.

So as you are well aware, we, the industry, have proposed the use of license condition to address this licensing issue.

We've discussed this with you - we've discussed this with you in October as part of the stakeholder meeting and we've subsequently, and it's been alluded to already, submitted a letter reflecting our views to Chairman Macfarlane.

As Dave Repka will discuss, the proposed license condition we believe would fully meet the regulatory requirements.

It will - it could be and would be objective and verifiable and construction - perhaps most importantly, construction could not begin until the license condition is satisfied.

That is, if the condition isn't met, as we've said before, construction could not occur and the public health and safety would be protected because the plants at issue simply would not be built. Next slide.

So moving to the project finance issue,

there's been a lot of discussion about project finance.

We think it's important and Mr. Hansen will explain the project finance model which is likely to be used by the non-electric utility applicants.

We think this is a viable means. This has been demonstrated to be a viable means of financing these and other large infrastructure projects.

And in its - and its closing, and here's the punch line, commits the funds necessary to cover the estimated construction and related fuel cycle costs.

Nothing being suggested by the industry - let me emphasize that - nothing being suggested by the industry in its license condition proposal is intended to or would reduce the requirements for financial qualification.

The very nature of a project finance assures that there's sufficient funding for construction and that the funding is committed from sources that meet high credit standards. Next slide.

So as will be discussed by my colleagues, the Commission has used a license condition in several - I could say many other contexts.

There's no basis, in our view, on which to conclude that a financial qualification license condition is any different than any other design or construction feature that will be confirmed as part of the NRC's inspection and oversight process.

Further, the Atomic Energy Act provides the NRC with a fair measure of discretion to determine what constitutes reasonable assurance that an applicant is financially qualified.

The wisdom, in my view and I think generally, of the statute's drafters is evident because the statute provides the NRC with the ability to accommodate changing economic and financial conditions while still making the necessary financial reasonable assurance with respect to financial qualifications.

In addition to being legally permissible, in our view sound public policy argues in favor of permitting licensing to go forward so long as the requirements of an appropriately robust financial qualification condition are met prior to beginning construction.

So with that, I would now like to turn to Mr. Hansen's presentation on project finance. Thank you.

MR. HANSEN: Thank you, Ellen. This is

Ken Hansen from Chadbourne & Parke. Go to the second slide.

The - I guess this is the question in front of us and whether the project financing of a nuclear power project could provide a "reasonable assurance" of adequate funding to construct and operate a plant. My slide asserts yes.

I, frankly, don't mean that as a legal conclusion. That's your job.

I mean it, I suppose, as a little bit of an empirical inference from 20 some years of global development in which the public - the private development of public infrastructure has become an increasingly acceptable thing from roads and ports and airports and especially, perhaps, in the power sector - power generation, transmission, distribution, you name it, in if not everywhere on the planet an awful lot of places.

And the dominant model for making that stuff happen has been limited recourse project financing in which the expertise and financial capacity of private sponsors is coupled with the financial resources of lenders to build large things, especially large things that might not have been so feasible on the balance sheet of a particular player or, frankly, on the balance sheet of a government that wanted new infrastructure but couldn't see its way to raise taxes to cover it.

This is a model that has provided breakthroughs in the availability of infrastructure in a lot of places and those countries, those developers, would all think that the answer to that question is, of course. So I'll talk a little bit about how they get there, if that's okay. Next slide. Thank you.

I think you've probably all heard variations of this before but let me just assert it. The project financing entails lending against the assets of a project and the cash flow expected from the project's operations without - with limited reliance on credit support that's external to the project. So you're looking at the project as the source of your repayment.

The assets to which you're looking include not just the physical assets but also the project contracts that provide the basis for construction and operation of the project.

Those contracts have to be in force and inform in substance satisfactory to the lenders before financial close, before the lenders put their money on the table and before the equity.

Equity may have put money on the table but before they're obligated as to the other people on the project to do so.

Moving on, as to the two elements of your test, I think it's fair to say that project financing does assure the availability of adequate funding for construction.

Nobody would go forward if they didn't think that that was true. The way they do it is with committed equity.

That equity can be taken seriously because either it has been prefunded, either already spent or put in cash in escrow or supported by a letter of credit.

It's a promise pursuant to an equity contribution agreement from the equity - from an investment grade company or, as I mentioned, it's assured by an investment grade guarantee of some other party or supported by a letter of credit from a bank of agreed adequate credit quality. So the equity commitments can be taken seriously.

And likewise, the debt is from lenders who have committed contractually to the project initially under commitment letters, then in due course under a credit agreement to make the disbursements that with the equity will add up to the total construction costs of the project.

Frankly, it adds up with the construction costs of the project and then some because there will be contingencies for any, you know, unexpected costs, just to provide a margin of certainty.

Moving on, for the second prong of the test on operations, I think the comfort of the participants in the project financing that really go back to the due diligence process when the lenders studied everything that was being assembled by the developers. The project contracts - they look at the regulatory environment.

They look at the track record of parties being brought to the table to do what they're - what they're planning on doing.

Their due diligence is a foundation of their comfort. Secondly, more technically but critically, the financial model.

The lenders will probably start with something proposed by the equity but nonetheless they'll test it. They'll tweak it.

They may in fact come up with their own independent financial model that projects the revenues or initially it projects the sources of investment against the construction costs and then during the operating period projects revenues against expected operating costs so that you can - well, confirm that you've got adequate funding through both construction and operations.

You can confirm that you have adequate revenues to pay operating costs and repay debt, provide a reasonable return to equity, and that financial model is sort of the Holy Grail of the transaction because it's describing the future on which everyone is counting.

It's taken very seriously and it's updated from time to time during the life of the project.

Lastly - perhaps a bit of a technical detail but it really seems to speak to the issues here - it will be agreed that all the investment goes into a pot and once you're operating all the revenues will go into a pot called the revenue account, and the revenue account will be allocated by a bank that's appointed for this purpose to cover the various obligations of the project.

And they call it a waterfall because there's a priority attached to the allocation of those revenues. And without exception, if you're in the project finance world the first allocation of revenues

- and the lenders would insist on this - is not to pay them but, rather, to pay operating costs.

The operating costs will be pursuant to an agreed budget. You can't just come up and say oh, I've got some more operating costs - I think I'll put those ahead of the debt service.

But to the extent you are following the agreed contracts and the agreed budget, the first priority for use of revenues throughout the operating period is to cover operating and maintenance costs.

The next step in the waterfall is likely to be debt service payments. Now, to be fair, these waterfalls usually have something like eight, ten, 12, 15 buckets so this is a summary.

But you can be confident that at the top is operating and maintenance. Then probably is debt service and then a series of other things.

And at the very end of the waterfall there will be a basket that captures all the money that's left over, and if certain tests are met then that money will be released to the equity as the rate of - to constitute the return on their investment.

But the arrangement is structured so as to assure that if anybody gets paid operating costs get paid.

Moving on, I hesitate. This is pulled straight out of the project finance class but it may be useful to get some sense of what the network of contracts looks like, and just a couple points to be made.

In the middle we've got this project company, SPV - a special purpose vehicle, meaning an entity that's created.

It's the opposite of traditional lending where a bank is lending against the track record of a - of someone, their long history, their established record of repaying debt, perhaps in fact their wealth, their lack of need for the loan.

Rather, our project company was just invented, has no history. It's never paid or repaid anybody for anything. In fact, it doesn't really have much.

It will have officers but it may not have any employees whatsoever. The way it does what it needs to do is through contracts.

For instance, it doesn't know how to build a power project. So it enters into an EPC - engineering procurement construction contract with someone who does know how to build contracts.

In the happiest world they'll - that

contract will provide that the project will be built for a fixed price. So challenges of getting that done at that price are a risk taken by the EPC contractor.

Once it's built, turned over to the project company, it has to be operated. Again, the project company doesn't know how to do that so it does it through the O&M contractor under an O&M contract.

To operate, it, depending on the nature of the technology, it may need a fuel supply - gas, coal, oil, whatever. So there will be a fuel supply agreement pursuant to which fuel comes to the plant.

And for the electrons that are generated they need to be sold. They need to go out through a wire. Typically, though, there are proliferating numbers of models for power systems in countries but certainly in the traditional model it goes out through a single wire to a single utility who enters into - promises to pay for that power pursuant to a power purchase agreement.

The last thing I'd point out is that I mentioned that revenue account and that all the funds coming to the project whether for construction or for operations would be put into a pot controlled by a bank. That's the collateral account bank and - well, let's move on to the next slide.

The last slide showed a bunch of little dotted lines which are the cash flow and this slide just makes the side additional point that the last slide is correct as a contractual matter but not as a practical matter because actually none of those parties - well, few of those parties - exchange very much money.

Really, the money paid by the utility, for instance, doesn't go to the project company. It goes to the collateral account bank and the collateral account bank then allocates it, first to operating costs or to fuel costs, loan payments to the banks, ultimately perhaps, dividends back to the sponsors.

But the money is carefully cared for by this third party institution but does it according to the agreed contract.

Moving on, a little more, I guess, background on project financing and I guess how it leads to the conclusion that there would be enough funds to do what you're trying to do.

Folks speak generally about three phases of the process. Development phase - that's everything that precedes construction.

In that phase, the developers of the

project, whoever has the gleam in their eye to make this happen, puts together enough fundamentals - in other words, sort of laboring over what really needs to go into that because the answer is it depends.

As much needs to go into that initial stage as is necessary to get the lenders interested, and so if you're in a situation where the deal just can't be done - the hard thing in the project is to find a purchaser for the power - well, then an element of your development phase will be to conclude a power purchase agreement.

If that's available to you as a matter of legal right and there are other things - who knows, maybe getting the environmental clearance for the site where you're working on - well, then that'll become the thing you work on first.

Fundamentally, what you need is the right to do the project and the practical ability to make a case to other investors, both equity and debt, that you can make this happen.

And, ultimately, the only thing I put down that seemed to be absolutely on everybody's list of what you're going to need are appropriate license to build, own and operate the project.

If you don't have that you're really not worth talking to and that perhaps bears on the - what you all are considering as relevant.

And once you've got, you know, those fundamentals together or enough fundamentals together, then you start talking to other investors both debt and equity.

Assuming those conversations go well, you move into construction phase, construction phase being kicked off with financial close at which debt and equity are available to start pouring into the construction account at the account bank and you're off to the races to build the thing.

That ends with the achievement of project completion. That sounds almost chronological by definition. The project completion is a bit of a term of art in project finance world.

It means something - a number of things above and beyond the completion of construction, about which more in a moment. And then you move into operating - that operating phase which sometimes, to the annoyance of the developers in the equity side, will be slavishly in accordance with the agreed project documents because that's, after all, what was promised to the lenders.

And if you're not going to do it or you're not going to do it the way you promised, you have to go back and talk to them. And it happens - waivers and amendments are a part of life.

But the expectation is that absent waivers, absent amendments, you will run the project the way you promised two years ago, 20 years ago. These are often 25-, 30-year financings.

So these documents become a constitution for how life will be conducted in that project over the long term.

Okay, next. I think I've already said it. The terms of the fundamentals - probably two critical stages - what I mentioned, gathering licenses and whatever else is necessary to interest third party investors and part of that process will be assembling your team.

Technical advisers, engineers, legal counsel, financial advisor and the lead arranger who will be basically a bank that specializes in raising debt, being paid a lot of money to know how to do that. Next slide.

In the financial structuring, the financial advisor probably is going to take the lead - or the equity, frankly, may have already taken a head start - in putting together a financial model showing sources and uses of funds both during the construction period and the operating period, the tension during the construction period being construction costs versus your sources of investment.

You won't have any revenues. Maybe very late in the construction period you might have some early revenues. But basically you're looking for investment to cover your costs.

Then the operating period it is your hope and intention that project revenues will cover operating costs or you shouldn't have gone down this road. Next slide.

I mentioned before one of the basis in which lenders get comfortable is that they have done their due diligence. They have - they have reviewed this stuff thoroughly - the project contracts, licenses, the regulatory regime.

Whatever seems to be relevant to the potential success of this project will have been studied and the results of that study are either they walk away, which is a possibility if it turns out not to be financeable - they're just not - they just can't get there.

But assuming they do get there then they will have identified any number of issues to which they want risk mitigants and those risk mitigants will be reflected in the financing documents, in representations, covenants, conditions preceding to the financial closing. Next.

Negotiation of financing documents - probably pretty obvious. Just as to the project finance lawyer in the room, it's dear to my heart.

We spend a lot of time trying to pull together the issues and the individuals involved in these documents which need to work for a long period of time.

Those documents include a wide array of terms already mentioned, I guess. The pinning down the sources of investment, there will be conditions that have to be satisfied before closing including permits, relevant permits and licenses.

One of the most sensitive areas in the project finance world are sponsor support and I can ask some of my colleagues whether it was okay if I mentioned that because a lot of folks in project finance it's sometimes described as non-recourse project finance and it violates the spirit of it that there should be recourse to anything outside the project.

But the fact is during the negotiating

process, during the due diligence process, you come up with stuff. You say, wait a minute, there's this little way the project could in 12 and a half years fall off the rails.

There's a business permit that has to be renewed. What if the town doesn't renew it? There could be an issue, and the ledgers say, you know, that risk could render this whole thing non-financeable.

Well, at that point maybe it'll be solved in some other way. Maybe there will be some money put into a reserve account.

But it often happens that sponsors say look, this is something we can control. This is a risk we can take. Okay, fine. We will be responsible.

That becomes an element of sponsor support. One of the classic elements of sponsor support is just to reasonably to cause the project company to perform its contracts on an ongoing basis.

So there may be some sponsor support which gives rise to the term limited recourse project finance as distinct from wholly non-recourse.

To the extent that the lenders are most - well, they're concerned about all this stuff but they're especially concerned to not ever have a half-built project.

That won't generate revenue. That won't be a particularly reliable source of repayment. So they want the thing to be completed.

So they may have sponsor support that applies during the completion period, and one of the elements of achieving that defined term I mentioned, project completion, is likely to be a consequence of achieving it is whatever sponsor support you had unless you agree to have something that would last longer is released.

Moving on, construction phase - it starts - kicked off with financial close upon satisfaction to relevant conditions precedent. Multiple disbursements will carry you through the construction period.

The industry term of art is typically commercial operation. That's when the thing - that's when the keys are turned over by the - by the EPC contractor to the project company or to the O&M operator and it's - and it's generating electrons.

It's being paid and it's done. You know, the ribbon cutting has happened and everyone's very excited that this plant is now in operation.

But in the project finance world there's usually this quiet knowledge amongst the banks that well, we're not really there yet.

We haven't achieved project completion because project completion has a number of elements, the first of which is physical completion. We're there. That's terrific.

But we also have other elements and that's how they negotiate it. But there might be an operational completion test meaning not only is the thing complete but it's demonstrated for some period of time that it can operate and generate what it's supposed to generate.

It may also be a test of the offtaker. Is the offtaker paying as was expected, as they were expected to do - perhaps more of an issue in international projects than domestic.

But some sort of opportunity for the project to prove itself in action may be an element of project completion.

Financial completion usually relates to financial tests that have to be met and it has to operate for a period of time for the revenues - for the numbers to build up to know whether or not you're meeting your debt service coverage ratio.

Are you generating 100-plus percent of the amount of money needed to pay debt service? You're likely to have obligations to generate not only enough to pay operating costs and debt service but something above and beyond that - an appropriate cushion.

And at the time you're achieving project completion there will also be a legal test which is - tends to be simply everything is as it was supposed to be.

You're in compliance with all your licenses. There aren't any events of default under the documents. Liens that were granted to the lenders have to be in full force and effect. Just everything has to be as it's agreed to be.

If we built the thing, it's operating properly, generating the expected revenues and we have our legal act together, it's done, then the lenders declare project completion.

If there was sponsor support it's released and you're off to the operating period. Next, please.

That was it. Good. You are not all caffeinated, perhaps. If there are questions I'd be certainly happy to take them now or for your agenda later.

MS. GINSBERG: Why don't we go through -

MR. HANSEN: Okay.

MS. GINSBERG: - the presentations and

then allow for questions? John, you're up next.

MR. J. MATTHEWS: John Matthews from Morgan Lewis and I'm here today as counsel for Nuclear Innovation North America, and I will comment. I was looking at the slide there and you were talking about the project company.

Obviously, in the case of a nuclear project where the project company is the licensee it does know lots of things.

MR. HANSEN: It will have been around for a while.

MR. J. MATTHEWS: And has qualifications and is around for a little while.

So but in our model it's kind of interesting because if you look at that figure that Ken had up there NINA is the project company. It's the equity and the owner.

It's also the company responsible for the construction phase and then the O&M contractor essentially in our model is STP Nuclear Operating Company who will actually operate the plant once it's constructed.

So we - you know, if you think in terms of that model NINA is trying to deploy STP 3 and 4 on exactly that basis.

But, obviously, with the project company that is a fully technically qualified licensee and responsible for quality assurance and everything else that a licensee is responsible for during construction.

But we need to get there and in order to get there, first, we need to get a COL, and obviously NINA is in the situation where we don't have the ability right now to bring together the financial wherewithal to close on a project finance and instead we need to first get the COL to then be able to go to market and pull together the necessary resources.

NINA proposed, I believe, originally in June of 2011 that the way to solve this problem was to use the license condition and I'd like to talk a little bit about the two elements here, which is, one, the legal basis for using a license condition to satisfy the financial qualifications requirement and just reinforce, I think, that the project finance model creates the opportunity to build a very robust license condition because it actually sets a very high standard for before you begin construction what resources you have to demonstrate that you already have in place.

And I think we can go ahead and move on to the next slide. So, first off, just a little bit on the legal background. The Atomic Energy Act doesn't impose any specific financial qualifications requirement.

Rather, it gives the NRC the authority to require information to demonstrate financial and technical qualifications, and the court cases I think are fairly clear saying that, you know, the Act gives the NRC complete discretion to decide what financial qualifications are appropriate.

The NRC has adopted, obviously, a rule, a regulation - a regulation that we all have to live by and one of the important thing in looking at that regulation - I think one of the most important things is to look at what is the purpose of that financial qualification and requirement and it is to, you know, protect the public health and safety and assure that a licensee that is constructing a project has adequate resources to construct that project, it's not going to cut corners, that a licensee that's operating a project has adequate resources to operate the project safely.

So the fundamental purpose here is safety. It's not a question of evaluating the financial wisdom of the proposed project. It's not an economic test.

It's not - it's not the NRC's role to insist that a project be economically liable or proven to be economically liable before a license can be issued.

That's the decision that investors are supposed to make and rate regulators and states in the context of cost of service utilities.

And I will point out that we're suggesting the use of a license condition here and we talk about merchant generators and we talk about the purpose of the license or the - that a license condition may be essential for some merchant generators. Certainly, we feel it is for Nuclear Innovation North America.

But this concept could also be used by cost of service utilities. In fact, you have some cost of service utility applicants with new plant applicants that are pending right now that are not necessarily racing to construction, that don't have the kind of rate treatment that they want in order to move forward with projects.

And, you know, they could make a decision to say well, we want to go ahead and get a COL but we're not in a position to say we're going to get the rate recovery that we expect to get to build the plant but rather we need to fashion a license condition that says give us the COL.

When we get, you know - for example in Missouri, I think, for the project in Missouri they were trying to get the state to enact specific legislation to provide incentives for construction.

So, you know, that utility might want a license condition that says, you know, when we have legislation in place that provides for this kind of construction recovery of costs for work in progress and we can - we can demonstrate that we've got that legislation in place we want a license condition - that that's the point at which we would be authorized to begin to construct.

But we're not - we can't tell you right now that we have rate recovery that we're going to use because we don't. We don't have what we need.

So this concept of license condition, I think, has much broader implications and could - can be used effectively not just for merchant generators.

Let me go ahead to the - to the next slide. The Commission - or the NRC staff and the Commission has in the past used license conditions to satisfy the financial qualifications requirement and I think the - probably the most important one I elect to emphasize and focus on is the private fuel storage case which is a Part 72 licensee, and you look at the test in 72.22(e) and I want to note 10 CFR 72.22 is contents of the application.

It's a regulatory requirement that says your application has to provide information that shows that you either possess the necessary funds or have reasonable assurance of obtaining the necessary funds to cover estimated construction costs.

Okay. And the situation there was that the applicant was in a position where he said, well, we can't show you that - we can't give you information in our application regarding contracts that we have in place to fund this facility.

We can't get those contracts because the marketplace won't sign up until we have a license. So give us a license with a license condition and then we will satisfy that license condition by showing you that we've obtained those contracts.

Okay. So concept, the application did not include the required information. Instead, the Commission ruled that a license condition could be used to satisfy that information requirement.

All right. And the Commission in these cases, to be fair, said look, the standards for Part

72 licenses and Part 70 licenses for financial qualifications are different than for reactors.

All right. The Commission said that. And there isn't an Appendix C like we have in Part 50 with - you know, with additional information that's specified in Appendix C for a Part 72 license.

However, the license condition that was used in those cases was not nearly as robust as the kind of license condition we're talking about there.

The license condition there was we'll show you we have some contracts that we think are bankable and then we'll go out to a bank and get a loan.

They didn't even say in order to satisfy the condition we have to show you we have the loan. It was just contracts.

Okay. What we're proposing here for a reactor is a much more robust license condition that is premised on I've put the entire lending package together.

I have it all sewed up to the point where I've got lenders that are willing to loan billions of dollars on the bet that I will have enough committed equity and funding and other letters of credit to complete the construction of the project.

And as Ken was pointing out, I mean, the idea here is the lenders are looking at this that they want to be in a position that they can step in and complete the project and get their money back.

The project sponsors can fail and they still will be able to get their money back. That's how they're looking at the project.

Now, in the context of a nuclear plant, obviously, they can't just do that. They would have to come in to the NRC and say hey, you know, the project's bankrupt. We want to take it over.

You know, we want a license transfer. We're going to have, you know, a new O&M contract or whatever it is or a new partner that's going to take the project forward.

We'd go through a 5080 license transfer process and then we'd go forward on that basis.

But just very, very important. So I'm not saying that the banks can just step into the project. The banks are evaluating the project on the basis that they need to be able to think - to figure that they can step in and complete the project and get their money back.

Again, project finance principles we're talking about. They're employed in situations where you have - where the country, you know, the government is the sponsor and lenders don't trust that the country will be able to finish the project, okay.

So they still want the assurance that they could step in, finish the project and get their money back. All right.

Those are the standards that are used in the context of these large infrastructure finance - project finance projects.

The other point I wanted to make on this slide is, you know, we look to Appendix C and I think that we can show and we will show that the license condition we're talking about would have elements through which when you satisfy the license condition we can show that - the licensee will have shown all of the information that is specified in Appendix C.

But we keep talking about Appendix C as if it's a rigid requirement. Appendix C is a guide.

I mean, it says in the title, you know, guide of the kind of information we need for financial qualifications.

Appendix C says the kind and depth of information described in this guide is not intended to be a rigid and absolute requirement. Appendix C itself has embedded in it the flexibility for this agency to consider the context of an applicant.

The other point I wanted to make about Appendix C too is there are additional tests in Appendix C for newly formed entities.

Fundamentally, even the provisions in Appendix C that talk about newly formed entities say it's basically the same information as preexisting entities or existing entities that we're looking for.

It's just newly formed entities, you know, usually aren't able to provide the kind of information that existing entities provide.

Now, if you look at the information required from an existing entity it's, you know, your last year's annual report or certified annual audited financial results.

NINA was formed in February of 2008, okay. We have five years of audited annual financial reports, okay, that we can present.

It's - unfortunately in this process getting a COL you might start off as a newly formed entity but before you get your license you're not.

And, I mean, you know, a billion dollars has been run through this company, okay. That's what we've spent. So I'm not talking about annual reports that say, you know, $100,000 or, you know, in and out of the company.

We're talking about a billion dollars over the last five years of audited financial results for Nuclear Innovation North America.

And I really think that any applicant you're dealing with that is deploying a plant on a merchant basis, that is serious about building, that is trying to get to the point of getting a COL, will have spent literally hundreds of millions of dollars before they're going to receive a COL.

It's not possible today for an entity to get a COL without spending somewhere north of $100 million.

So let's go on and move to the next slide. So the kind of license condition that we've proposed here is a plan to obtain funding through, actually in NINA's case, a DOE loan guarantee and a loan from the United States Federal Finance Bank and that's the kind of condition we're talking about here.

So in NINA's case, the kind of project finance we're talking about you don't have to just take Ken's word for it as to what project finance means.

You can look to the DOE's loan guarantee program and its regulations for implementing that program which established the standards by which it will guarantee a loan. So here in 10 CFR 609.10(d) there are a number of requirements. But, I mean, Ken will tell you the DOE developed its rules using basic project finance principles, I mean, so that the project - the regulations - DOE's regulations embody essentially the project finance principles that we're all talking about here today.

And to, you know, reemphasize this point that the banks expect the project to be completed in order to get their money back, they're not - NRC's regulations say you have to show reasonable assurance that you'll have adequate funds to pay your estimated construction costs.

That's not the test the banks are using. The banks are insisting that there's an expectation of adequate funds to fund not only your estimated construction costs but lots of contingency, potential costs overruns that, you know, we have other additional sponsor support or, you know, limited recourse kinds of support to handle unexpected events.

So, you know, the test of the NRC is well, here's your construction - here's your estimate, you know, do you have adequate funds to cover it and the banks are requiring a lot more than that.

And I know in NINA's case, you know, our estimated construction costs we ultimately just - it came down to well, we're not going to just give you our estimated construction cost.

We're going to give you our estimated construction cost plus all the contingency and the extras that DOE is forcing us to add into the - into the mix.

But it really is going beyond what the regulation actually says. So and then the second key aspect of the regulations I'd like to emphasize is that there is a requirement that there's a reasonable prospect of repayment.

So and before DOE is going to issue the guarantee, before the United States Federal Finance Bank is going to give the loan, they're going to be doing the analysis that says yes, this project is economically viable, is not only going to be able to have enough money to construct but is also going to generate sufficient revenue to repay the loan.

Go ahead to the next slide. I went to the wrong page. I think we've already covered six - yes. So let's - yes, let's go to seven.

I mean, the key here is and there's a major difference between the license condition that's being proposed and issuing a license, say, for example, you know, the agency made positive financial qualifications findings for Vogtle and for - and for the SCANA project for Summer.

And those positive finance qualifications findings were based upon, you know, reasonable assurance of funding based upon well, those utilities are going to in the future go get money from the rate payers. They're getting some money now from the rate payers.

They'll be able to continue to get money from the rate payers and so that provides the assurance for construction and that's the basis for this to work.

Those license are issued - those licensees have the authority then to construct, to continue to construct the plant and obtain the funding while they're doing the construction.

They don't have everything in the bank up front. What we're suggesting here as a license condition is that we get a COL where we have no authority to construct.

We can't begin construction until we've satisfied a condition and the condition that we're proposing that we satisfy is we have sewn up all of the money. There's - you know, under this project finance model there's no, you know, sort of betting on an expectation that three or four years from now we'll be able to continue to get funds.

Really, the construction funding is sewn up up front to fund the entire project.

In addition, the plan here, obviously, is to use the DOE loan guarantee program for NINA. And I just wanted to run through one other thing.

If we could go to the last slide, and I handed out - and I know Dave is going to talk to, you know, how do we close out the license condition.

I just wanted to try and - you know, in my mind the verification of satisfaction of this license condition might sound like a very daunting task and certainly there will be, you know, big stacks of paper involved.

But it really boils down to several very simple questions. All right. So it - I just made here a hypothetical example of a single unit plant with a $7.7 billion construction cost estimate.

And, you know, under DOE's rules before the - before the financial closing of the - you know, the loans and the loans guarantee there is an independent lender's engineer that does cost estimate - that updates the cost estimate, makes sure that the cost estimate, you know, that you had a year or two ago is still accurate.

And so, you know, you go through that process and you'll have that number so you'll - in this case that number is $7.7 billion.

All right. So the first stack of documents you'll have will be a credit agreement, a note. There will be a face amount and it'll be the loan from the Federal Finance Bank and it'll be $4 billion.

And so you're going to look at that and say well, okay, there's $4 billion, check the box, Federal Finance Bank. Obviously, you know, a decent lender.

Next piece an export credit agency. So let's say the export credit agency is, you know, Korea Export-Import Bank - you know, a government-supported agency, a foreign agency.

Obviously, good credit quality - face amount $1 billion. Okay, check that box.

Other first lien debt - this project is able to get a loan from CITI Bank to support the project, $400 million with first lien debt. It's going to have a face amount on the note, $400 million, at CITI. You know, check the box.

A debt service reserve which will be either - actually probably likely funded dollars, right? Cash in that account for the debt service reserve?

MR. HANSEN: Dollars or letter of credit.

MR. J. MATTHEWS: Or a letter of credit. Or a letter of credit from an obviously qualified financial institution. So $250 million.

Decommissioning fund collateral - that's likely to be a letter of credit in the Texas examples, for example, using the Texas decommissioning model, which relies on a state statute that says as long as you provide some assurance that there's a rate payer backstop, essentially.

So if the project goes bust the rate payers will pay for decommissioning like a cost of service utility.

All right. So $100 million, check the box. PPA collateral, again, letter of credit. Check the box.

Working capital - Wells Fargo is going to provide $100 million in, you know, working capital.

So you'll have a credit agreement, you'll have that. And then there'll be an inter-creditor agreement that specifies the rights among all of these

- all these parties.

Those credit agreements, security agreements, inter-creditor agreements, they are the legal and financial relationships between the lenders and the borrower.

So Appendix C talks about, you know, providing information with specificity about the legal and financial relationships with the lenders.

In the project finance, you know, I got it. Here it is. It's a credit agreement. This is what it says, you know.

I mean, these are the - you know, if you want to get into the details and look at what a default is and what rights there are on a default, you know, it's all there. That's the legal contract that specifies all of those relationships.

Then, finally, you get down to the - the banks are going to have agreed, okay, with the project sponsors.

Well, how much credit do you get for money you've already spent, your contributed development expense, and there's going to be some piece of paper that verifies what that amount is that the banks have agreed to - $200 million, check the box.

The banks are going to have agreed to a

contributed site and common facilities value. Most of the projects now are being built on existing sites.

So you've taken an existing site. It has value - you know, it's a brownfield site. It's got transmission, you know, capacity.

South Texas project the common facilities include, you know, the main cooling reservoir, a 6,000- or 7,000-acre main cooling reservoir with water rights for two units.

Well, in Texas water rights for two nuclear units is a pretty valuable asset. All right. So the banks are going to have agreed.

Now, quite frankly, the book value may be a lot more than that but this is just going to be the value that the banks agree you can take credit for.

And then, finally, your cash equity - how much - whether it's cash equity or whether it's a sponsor equity commitment, the documentation for that will be there, what the banks have agreed to, and they'll have face amounts.

You'll be able to look at the amount. You check the box. You add all those numbers up. They add up to $7.7 billion. License condition is satisfied.

And so, you know, it sounds very

complicated but it really is not that difficult to verify that this license condition has been met because of the rigor with which the banks will require documentation for the project finance.

That's all I have.

MS. GINSBERG: Okay. David?

MR. REPKA: Okay. I'm Dave Repka and I'm with Winston & Strawn.

MS. GINSBERG: Third one down.

MR. REPKA: That's it. Okay. So at risk of being a little bit redundant here, what I think I want to address in my remarks are - I think really what the ultimate question in the room is which is can the NRC do this - is it within its authority and how will it work, and I think the answer to that is yes, the NRC - it's well within its authority to impose the license condition at the time of licensing. This is not something new or different.

It's no different than the way it works in any other regulatory context on any other NRC regulatory issue and I think the closeout process is fairly straightforward.

So with that, I think we're all familiar. We've heard about what the issue is for the non-utility generators.

The financing - the money in hand comes only later when the project finance closes and the project finance will close only at a time when the licensee has decided that this project is marketable - is viable and the market conditions dictate that they can go ahead and construct a plant.

And I think that the Reg. Guide 1.206 already recognizes the fact that the application at the time of the application, at the time of the COL issuance, there may not be a precise schedule for actual construction of the project.

So I think the timing, the fact that there's delay in actual construction I think is something that the Reg. Guidance already recognizes.

I think it's also important to underscore yet again that the COL issuing itself it is a necessary prerequisite for construction, for project finance.

It's essential to the project finance lenders to have that regulatory certainty. So that's - you know, hence we have this timing disconnected to results for license condition.

Next slide. I think that there is a large amount of outstanding NRC case law that addresses the issue of license conditions and whether - when are they appropriate and where they are appropriate.

John has mentioned the ones already in the specific context of financial qualifications, the LES and PFS cases.

But those are just specific examples of a much broader proposition and quoting there from the NRC's appeal board back in 1985 there's a recognizing a settled principle that licensing findings can be predictive findings and that they're a legitimate part of the NRC licensing process.

Now, what does that mean? It means that the NRC at the time of licensing recognizes that there are some things that can come later that will be confirmed, and we'll talk a little bit - in a minute I'll talk a bit about the - exactly what was going on in that case.

But this idea that the NRC makes a reasonable assurance finding and issues the license subject to verification of certain conditions later it is the broad principle.

It's legally recognized. The NRC's own Part 52 regulations for COLs that create the ITAAC process are another manifestation of that same legal principle. Not the only one but a - but Part 52 ITAAC are a specific embodiment of that idea that the COL can be issued with conditions that have defined tests, acceptance criteria, inspections that can be completed prior to operation of the plant.

And again, Part 52 has a precise closeout mechanism. That doesn't need to be the closeout mechanism for every license condition but it certainly provides a model.

Next slide. So in the Diablo Canyon case what was happening there was you had a construction quality verification program underway with the recognition that certain deficiencies had been pointed out and will be identified through the QA verification process.

The NRC is making its findings for operation in those states with an OL based on reasonable assurance that the process provides that the plant can be operating safely with a recognition that certain corrective actions will need to be taken to address deficiencies identified.

The corrective actions can be - an implementation of corrective actions can be addressed as a post-licensing inspection enforcement matter.

NRC licensing boards have also recognized that the predictive nature of a reasonable assurance finds in the context of emergency planning that the licensee has submitted an emergency plan that shows that effective emergency planning actions can be taken.

The regulations require reasonable assurance that they can and will be taken. The NRC has the plan and - but there's a recognition that in the future under the regulations and perhaps license conditions there will be exercises of the plan on a certain periodicity.

And the NRC will confirm the exercise, confirm corrective actions as part of a routine post-licensing inspection enforcement function.

So, again, there's a recognition that the NRC's authority doesn't end with the issuance of the license. It's just moving to a different process.

I think - I think we all recognize and the cases recognize that a license condition has to be objective and verifiable.

The NRC can't be deferring a ministerial action or a discretionary action that's necessary that it has to exercise prior to licensing and needs to make part of its hearing process.

We're not proposing kicking any discretion down the road. What we're proposing is that at the time of licensing all of the requirements will be met and that the license condition will impose things that can be verified that are objective and confirmatory in nature.

Now, one of the handouts that we prepared here is a - is a matrix of NRC financial qualification requirements, and I won't go through and check all aspects of this but the idea is to show that the NRC is making at the time of licensing a present finding of reasonable assurance that the funds will be available.

The regulations themselves require that the applicant demonstrate that the applicant possesses or has reasonable assurance of obtaining the funds necessary, and that's the finding that the NRC is making at the time of licensing based upon the process that John and Ken talked about later, subject to confirmation and specific terms of a license condition.

Now, one of the questions I think that was asked last week on the call that we wanted to address was the question is this a waiver, and a license condition is not a waiver. It's not an exemption.

A license condition is something different entirely. It's a confirmatory action to be closed out through inspection and enforcement. It doesn't require an exemption. It's not a waiver of any requirements. All requirements are being met.

I think that - yes, the next question becomes is can we have confirmatory license conditions that fit this context that are appropriate, that involve specific objective verifiable criteria.

And I think that's - everything that Ken has been talking about and John has been talking about, I think, are - provide the basis for exactly that discussion and I think demonstrate that there can be those kinds of criteria.

NINA has proposed a specific license condition. NEI has proposed that license condition. That's not the only way to write the license condition.

That is a model license condition. It's a suggestion. I think that every licensee's - every applicant's case is going to be different.

I think, clearly, that the terms - the precise terms of the license condition are something that would be worked out in the licensing process.

You know, in this checklist that John talked about earlier certainly shows that the kinds of things that can be put into a license condition and subject to post-license and confirmation can be very objective and very verifiable and easily verifiable through the process.

But, again, that's something that would be addressed case by case what the specifics of those things are with a focus on what does the NRC need under its requirements at the time of licensing and recognizing that it's a reasonable assurance finding and based upon a process that will follow later.

John alluded to the fact that electric utilities rely on the rate process, the rate making process - process service rate making to demonstrate reasonable assurance. And what we're talking about here is really no different.

We're talking about reliance on a process that will provide the funding, and at the time of licensing for an electric utility the NRC does not get into the details of the rate making process and, you know, and try to anticipate what the future is going to be, what issues come up - might come up in the rate making process - you know, when the state public utilities commission might decide that funds have been imprudently spent and won't allow a cost recovery.

Those are issues that are not necessary to be resolved at the time of licensing. If there were specific problems later with respect to financial qualifications, again, the NRC has all the regulatory authority under the Atomic Energy Act to address real conditions when they arise in the future.

So the specific terms go to what's necessary to find reasonable assurance based on this process that's going to apply - this elaborate project finance process where many of the stakeholders in that process will assure themselves that the project is viable and that the funds will be there.

So I think - and, you know, as John already pointed out, the DOE loan facility under the DOE loan guarantee program generally what we've seen there is there's also a substantial number of conditions precedent to closing on the loan facility. And, again, that's another model that shows that there are verifiable criteria.

Next slide. So in terms of the closeout then, the precise nature of it will depend upon the terms of the condition but more broadly speaking, the NRC staff will review and confirm satisfaction of all licensing conditions at an appropriate time such as upon closing of the project finance.

This is similar to verification of the closeout of a QA deficiency, a corrective action, completion of the exercise, and the other things - in fact, completion of all the ITAAC that are necessary prior to operation under Part 52.

The license condition can include specific notification provisions. We've seen that, certainly, in the license transfer approval context where the NRC will issue a approval, a consent to a license transfer subject to certain notifications, so many days prior to closing on the license transfer.

And, you know, similar if there's something that the NRC needs to know about, the time of the closing or the project finance or some particular detail that it needs in order to execute its closeout, that certainly can be included in the - in the license condition, the notification documentation requirements.

Then in terms of the actual documentation for the public of the - of the closeout, that would be presumably in an inspection report or any other regulatory vehicle that the NRC sees fit to document closure of a confirmatory action, and it's no more or less than that.

So next slide. So, in general, again, just to emphasize, a license condition in this context it's not a novel concept. It's certainly something that's recognized in NRC practice.

The NRC licensing requirements for financial qualifications will be met based upon a reasonable assurance finding, backed up by the confirmatory license condition, and then the NRC confirmation and closeout is a post-licensing activity.

It's part of the NRC's broader regulatory program and I think, again, I'd underscore that the licensing review and issuance of the license does not end the NRC's authority.

So, certainly, other problems, other risks that become more coherent later in the process the NRC will not be helpless to address those issues through its process.

MS. GINSBERG: Okay. So with that, that is the formal part of our presentation. We've done our level best, of course, to answer the questions that you've asked.

But I suspect there may be points of discussion that you'd like to pursue so I understand we're now supposed to have a break. So now would be a good time.

We'd be happy to do that and come back and answer whatever questions you might have.

MR. CHAZELL: Sounds good.

MR. NIEH: Why don't we plan on coming back at 9:30?

MS. GINSBERG: Sure.

MR. NIEH: And then we can start?

MR. CHAZELL: Okay. Great.

(Whereupon, the above-entitled meeting went off the record at 9:14 a.m. and resumed at 9:31 a.m.)

MR. CHAZELL: Okay. We are back in session now.

I'd just like to remind people on the phone that if you have questions to identify yourself when we get to the end so that the transcriptionist can get your name and we'll just start now with - I know Anneliese had some questions and we'll just start from there.

MS. SIMMONS: I'm going to try to keep my questions brief. My sister is actually in labor at George Washington Hospital at this moment and so my attention may not be focused on the slides.

But thank you for the slides and the explanation. It was really helpful, and I'm going to take advantage of Mr. Hansen's presence because we - the staff is really interested in learning about some of the issues related to private finance so we can have an understanding of this.

Okay. One of the - well, I want to start by saying we've - the Commission has addressed, you know, I'm - we're on the staff so we are restricted into our authority to be able to reinterpret the requirements, okay.

And the Commission has addressed actually merchant plants' financial requirements in the past and so my question for you is when we talk about private finance one of the issues, the kind of underlying assumptions, I think, in this proposal is that safety doesn't begin until construction, okay.

When we look - now, the staff's theory is that safety begins at design, goes all the way to decommissioning and we have these triggering points of financial reviews throughout the process.

Okay. So our perspective might be a little bit different. And what we're looking at is what happens between - right now we have a requirement that project sponsors and project sources of funds be identified at licensing and then construction can happen after that.

And I think what maybe is - the thinking here and the philosophy is that nothing that happens between that time really is related to safety, okay.

Now, you talked about the development phase. We have - I was wondering if you were familiar with some of the research done by Ed Merrow about mega projects, and one of the things he says that we think was sort of interesting is that it's very important that the deal drive the scope and that if the deal, the financial deal, is not set up and really worked on earlier, way before financial close, okay, and that money is not spent before financial close to really do a thorough front-end loading, okay, you actually will have - there's some correlation with operational problems later.

And I just thought - I'd just like to know your views on that.

MR. HANSEN: Sure. Well, I think - I think two thoughts. One, though you may not have the financing until financial close, you're thinking about financing from long before you've met your first bank and you're looking at, frankly, every contract you enter into as to its financeability.

So and depending on what financial institution you work with some want to be involved earlier in the process just because they want to get their licks in early so that you're not having to amend project documents in order to make them happy.

They might even let you know their view on this that early.

Others, actually not so much. Life is short. You guys put it together. You know what you - what we expect if you don't get counsel who does or financial advisers who do, and just make sure you meet our standards which are well known in the market place.

And then so the due diligence process often is more confirmation that you've done things appropriately.

So you're thinking about financing from day one, not to mention far earlier than financial closing.

Then two, among the things about which you're thinking actually I hadn't thought about safety issues at all going into this so I don't - but I can tell you that certainly the agency lenders involved - international agencies, U.S. government, Department of Energy's program was mentioned and increasingly certainly in the last years, the commercial banks as well - have propagated or adopted one way or another social environmental policies which include worker safety, community safety.

And those standards and your compliance

with those standards are among the things about which you have to worry in order for the project to be financeable.

So in terms of being concerned that your project when built will, as it's being built through the construction process and then certainly as it's operating, will comply with, you know, your bank's standards, not to mention licensing requirements of the community, et cetera, environmental requirements.

That's all very much part of the picture so it's not something that is suppressed until financial close by any means.

MS. SIMMONS: Right.

MS. GINSBERG: Anneliese, can I ask a question please? You were - you were suggesting that Mr. Merrow's works suggests that the deal drive the scope of the project and then you talked about front-end loading. Front-end loading of what?

MS. SIMMONS: Well, I think if I could just address my questions to Mr. Hansen that would be helpful.

But I think that the idea is is that there's a lot of work that happens in the scoping and if that isn't done adequately there will be - there's a correlation with operational issues that would be a concern to the NRC.

We're not concerned with cost overruns. I agree. We're not necessarily concerned with schedule slippage.

What we are concerned is quality of the construction and if there are any operational issues.

So we've tried to look at some of that empirical research just to kind of inform the decision.

MR. J. MATTHEWS: Anneliese, though, there were a couple of false premises in your question regarding industry's position and regarding the state of the law as I understand it.

So I think it's critical that we clarify that. And first off, nobody in industry is saying that safety is not important prior to beginning construction.

All right. Every licensee that is an applicant understands its safety responsibilities during the design and construction phase and no one in the industry is saying that money is not important to that process.

During the development phase the money is being funded, obviously, by the developers.

In our case with NINA, we've spent over a billion dollars, okay. That money being spent is the assurance that there is - nuclear safety is being looked after during the design process and we're finally to the point where it's only a matter of, you know, millions of - millions of dollars to get to the point of having a COL.

But we've spent a billion dollars to assure safety in the preconstruction phase.

Once we have a COL, the amount of money you need to spend to just, you know, kind of keep the design on the shelf is not incredibly large.

So the industry's position is you can fashion a license condition around satisfying the requirement to demonstrate the full availability of funds to construct based upon closing this license condition because before you begin the major construction activity there's relatively little money that needs to be spent.

The core safety issues that, you know, when you're under construction of a multi-billion-dollar project that's what you need to assure that we have the money to fund after construction commences.

Secondly, I disagree with the fundamental premise that the regulations require that you demonstrate the funding before you get a license.

That's - I think we have a fundamental disagreement about that in that the Commission has ruled in the private fuel storage case and elsewhere that you can use a license condition to satisfy the requirement for showing reasonable assurance for - of obtaining funds.

And so it's a false premise to say that there is a clear regulatory requirement that you identify all of the sources of funds and that you can't satisfy the identification of sources of funds with a license condition.

MS. SIMMONS: Okay. Well, the way we look at it is we need to - the rule says identify source of funds so that's - these are the staff's perspective on that. And if we don't have those identified sources of funds we may have a different view of that.

We're just challenged in sort of how the process works. I think another question would be for Mr. Hansen.

You mentioned that - you said, John, that not much money needs to be spent. I wasn't sure about what you said before construction to ensure safety.

MR. J. MATTHEWS: After you've completed the entire technical review you've issued a COL, okay.

You've spent a billion-plus dollars

getting the license, the amount of effort that needs to be made to maintain the license on a shelf when you're not beginning to construct is relatively small. I mean, there are -

MR. REPKA: Let me add to that. We are talking about a COL and much of the design work may have already been done through the design certification process.

MR. J. MATTHEWS: Exactly, and -

MR. REPKA: We're not talking financial qualifications -

MR. J. MATTHEWS: And if you're talking - if you're talking about spending money on detailed design that's intended to be done during construction, you just - it's not realistic that a licensee is going to spend a lot of money doing that unless you have - you have, you know, the funding for it and you're on the path to satisfying the license condition and have a financial close.

MR. MCBURNETT: Mark McBurnett, NINA. Just as a practical matter, this license condition proposed would preclude us from having any licensed activity disruption prior to financial close and it wouldn't preclude us from doing everything we can do today or things you could have done yesterday, all pre-construction activities under the rule.

We could basically build most of the parts of the plant as long as we don't go into what is defined as construction.

So what we're really precluding with this license condition is entry into actual construction or licensing.

If anything that we're doing is before that, before financial close, it's the same thing they could do - from a safety standpoint of the issues.

MR. J. MATTHEWS: And there isn't a financial qualifications requirement to be an applicant.

MS. SIMMONS: Right.

MR. J. MATTHEWS: You know, and then so you're already dealing with this issue. You're trusting that, you know, that an applicant is complying with your requirements and you're relying upon the fact that you're conducting reviews, that you're inspecting those activities to make sure that safety isn't compromised.

But you haven't - you haven't imposed any, you know, threshold requirement - financial qualifications requirement to become an applicant and engage in serious nuclear safety design activity.

MS. SIMMONS: Right. Although we did waive the financial qualifications requirement for a manufacturing license on the basis that our licensees would be financially qualified.

So I think, you know, there's some question about whether it's interrelated. But I guess I have a question for you because you're familiar with the DOE loan process.

In your experience, hasn't the DOE issued conditional loan agreements long prior to financial close?

MR. HANSEN: Well, yes. But they're conditional commitments, right?

MS. SIMMONS: Correct.

MR. HANSEN: And so those are -

MS. SIMMONS: That are verifiable at financial close.

MR. HANSEN: Well, I mean, they're verifiable from the moment they're issued. They're signed by the secretary.

MS. SIMMONS: Right. Right.

MR. HANSEN: But they're a step along the way to financial close just as a function.

It's, frankly, fairly parallel to the way a lot of the commercial market works but it works exactly that way because it was the final rule -

MS. SIMMONS: Sure.

MR. HANSEN: - you know, propaganda for the DOE loan guarantee program that thou shalt first issue a conditional commitment and then -

MS. SIMMONS: Do you need -

MR. HANSEN: - in due course go to financial close.

MS. SIMMONS: But you don't need a COL before you get a conditional commitment?

MR. HANSEN: There's nothing like that in the regulations.

MS. SIMMONS: Right.

MR. HANSEN: As a practical matter. I'm not sure as a diligence matter what they're requiring. But I take it not, yes.

MS. SIMMONS: I have a question just about if a licensee were given a COL but you mentioned a couple times that the financial model has to work.

If they were issued a COL but the financial model didn't work, would they - would you provide financing?

MR. HANSEN: No.

MS. SIMMONS: I guess I just have one -

MR. HANSEN: Having said that, in the

financial model is a description. If the financial model doesn't work, the simple answer is you would fix it if you could.

MS. SIMMONS: Sure.

MR. HANSEN: If the reason it doesn't work is because you don't have enough revenues or the expenses are too great to build it or too great to operate it and so when it works perfectly it just shows that you have poor debt service coverage.

MS. SIMMONS: Right.

MR. HANSEN: If the financing doesn't work the financial model, I suppose, works perfectly just to show that the project doesn't make sense.

MS. SIMMONS: And that the due diligence process is to verify that there will be some through the non-recourse process that you would have enough to cover.

MR. HANSEN: Although to be fair, I don't know that I've ever seen a project where that was an issue because it wouldn't have gotten that far because the first cut of the financial model is going to be put together by the equity investors who, at the end of the day, would like to make some money here.

And if their cut at the - and the costs and benefits of doing the project don't add up they're probably not going to go much further.

MS. SIMMONS: Right. Okay. So - okay. Thank you.

MR. DUSANIWSKYJ: Just to follow up, so a COL would not - that kind of pace would it hurt? Would it help?

MR. HANSEN: Well, what it helps is as, you know, as being one of the necessary things for you to be taken seriously by the financiers, right, when you're assembling your bank group or putting together a bond deal, whatever it is.

The - it's - otherwise, who are you? Why are you talking to us? What makes you think you can do this? If NRC isn't willing to take you seriously, why should we?

MR. NIEH: Ken, If I can, I had a couple questions. Well, I know Anneliese had one more but since we're on the subject I did want to explore this again.

This is Ho Nieh from NRR. Ken, can you give a couple examples that are perhaps non-nuclear with respect to large-scale industrial or other projects that the regulatory licensing or permitted was a key factor in the success or failure of the project finance?

MR. HANSEN: Oh, absolutely. I mean, I think in most of the planet, not necessarily in the United States because we have a little looser approach to letting folks go off and develop power projects, but most of the planet the very first step is a decision by a government to issue someone a concession agreement or an implementation agreement - basically, a license to build and operate a project.

And that often comes through a competitive process. It may be a negotiated process.

But one way or another, the thing that gets the whole thing going, I suppose. It really gets the whole thing going in some developers, you know, gleam in their eye that hey, there's an opportunity in India or Malaysia or Indonesia. Let's go - let's go get involved in that process.

But the first step suggests they have something as the government basically issues to them the concession and then you now have something that tells you the parameters of what you are - will be obligated to do or you have the right to do and then you go put together your team and your - and your lender group. I mean, I can - I can give you examples.

MR. NIEH: Maybe something that's

domestic, I would, say where there isn't that circumstance of a government concession where there's some project that needs to be - a large-scale project that would need to be funded but requires some - either municipal or a federal permitting to move forward.

I guess what I heard in the presentation and Ellen, this was in your letter as well in the November letter where it was suggested that, you know, sponsors - financial sponsors or lenders insist on this license prior to giving a commitment for funding.

So, again, and I just would like to know if there's maybe a non-nuclear example that I could kind of hear about where the permit was actually a key factor in influencing project management.

MR. HANSEN: Sure. I mean, one example might be everything which you just mentioned - DOE loan guarantee program, everything which they're funding is required to go through the NEPA process, all right - National Environment Protection Act - and the NEPA clearance is a requirement before they can close.

MR. MAYFIELD: Water projects, for example?

MR. HANSEN: I'm sorry?

MR. MAYFIELD: Water projects?

MS. SIMMONS: Dam or -

MR. HANSEN: Well, yes, obviously. They all had NEPA but they're - I mean, most of my experience is international so I'm - I mostly heard about kind of the domestic challenges.

I think one of the threshold requirements often has been state and environmental clearances to use at a particular site in a particular way.

If you don't have that, again, you're not going to be taken seriously and that will - one of the threshold clearances that people are lining up.

MS. GINSBERG: I would also say conceptually as a matter of history if you think about sort of yesteryear in terms of licensing projects you had long histories of plants being licensed.

Then you had to go through the operating license adjudication and so there were a lot of financial implications.

So the uncertainty has reached the financial market. Whenever we go to talk to members of the financial market the first thing they're interested in is the certainty of the regulatory process because the vagaries of the regulatory process have been duly noted by the financial markets and have had big impact on exactly the kinds of projects that we're talking about.

NINA's an empirical example of the exact issue where having a license in hand is necessary.

MR. SIMMONS: This is Jeff Simmons from Luminant. I think you wanted to know some examples.

Well, in Texas a developer, Panda Power Funds, has actually just closed financing on three projects - well, actually two and they're attempting to close the second phase on the first project.

But their requirement to obtain and close financing was to have the air permit in hand and it's a combined cycle gas plant.

It was - it was to have an air permit in hand to have their water contract lined up with their - with their municipal water supplier and to have their EPC contract lined up in advance and a number of other significant contractual obligations lined up.

But as an empirical example, that's a - something that's recent, that's closed, that you can look at and it's very well published in financial publications as to how that financing was accomplished.

And it's very typical with the exception of the - and all projects have different means of securing revenue certainty. But it's very typical of many projects that have been proposed.

MR. HANSEN: I was trying to think of a domestic project that might be going on now and I have come up with one which was the Cape Wind project proposed - Nantucket Sound.

Controversial for a decade but they're one of the - though it's all but surrounded by Massachusetts it's actually in federal waters and getting a lease, getting clearance from the Department of Interior to proceed with that project.

It's been a critical aspect of it being taken seriously by its prospective lenders.

That's not - may not be public record where those would be. But the fact that it was a really big deal for that project when the Department of Interior, after, I don't know, months, years, whatever, of review approved the project going forward. That is public record and it was obviously important.

MR. J. MATTHEWS: A big - a big issue here though is time to market, okay. If you have the COL in hand and the market conditions change or you have a change in law, you know, in our project we ran numbers to demonstrate adequate revenues to cover operations and those numbers are positive, okay. Satisfy NRC or NRC's requirements, in my view.

But they're not bankable. The profit isn't - the profit isn't high enough for an equity investor to come in right now, okay.

But if we have the COL in hand, if, you know, some things were to happen - for example, Texas legislation to incentivize capacity, there are restraints on capacity in Texas - I mean, very realistically the Texas legislation could step in and say, we're going to create a revenue stream if you bring new nuclear capacity or new capacity into the market - something as simple as that could on a dime make our project, you know, ready to go in - I mean, it's not like if we have a COL in hand right now, if we had a COL tomorrow, we wouldn't be turning ground for, you know, or at least beginning license construction certainly, pouring safety-related concrete for, you know, a long time.

I mean, it's going to take a year or two. But the point is is it's not going to take five years or have the vagaries of a new technical review or second technical review that has to take place.

If we get across the finish line and have the COL in hand then you're in a position to bring the project to market much more quickly.

MR. NIEH: And I appreciate that and I found the presentations very good. They helped illuminate in more detail the proposal.

So just a follow-on question. I did have a thought on this line. It would help me understand just the issue more broadly.

So you've got this project that you - this project financed that you're trying to pursue here and one uncertainty is the regulatory licensing aspect of it and, again, having that in hand certainly eliminates that risk or uncertainty. Then you could present to a lender.

Can you give me a sense of the - kind of the relative uncertainty or risk of that COL versus some other risks or uncertainty in the project?

Because, obviously, they're going to be evaluating the future revenue streams of, you know, the purchase power agreements and things like that.

But where does the licensing process fit relative to other risks in the project that a lender would consider?

MR. J. MATTHEWS: It's the only thing we're doing right now.

MR. NIEH: That's the only risk or -

MR. J. MATTHEWS: I mean, that's it. That's the only - that's the only thing. I'm saying right now, NINA, the only thing we're pursuing is a COL.

MR. NIEH: Right.

MR. J. MATTHEWS: Okay. That's the only thing we're spending money on right now. Okay. When we have the COL we can do something else.

MR. NIEH: But isn't it - if I understood correctly with the project finance you're looking at, you know, the paying off your - any debts through your funds by projected future revenues.

I mean, there's some risks associated with that. So I think as a lender I would want to evaluate your business model. It's not only the COL aspect but basically your business model.

So I'm just trying to get kind of a relative comparison of how the COL stacks up against other risks in the project finance.

MR. HANSEN: These are the folks with a background in industry but I have - from what I've heard I've got to imagine it is a threshold.

That's the thing that without which it's hard for you to be taken so seriously as a project.

But the same thing with the first step in the development phase is assembling those elements of the project that really are necessary in order to be taken seriously by the next stage of the process, which is approaching other equity, frankly, as well as debt busters - lenders and a different environment is just a different thing.

MS. SIMMONS: Would it be your position that the CMO is more important than a PPA?

MR. J. MATTHEWS: I can't even get a PPA or talk to somebody about a PPA at this point.

MR. HANSEN: I mean, at the end before you - when you reach financial close there are a lot of things that are important and at the end of the day there may be some little legal opinion that - who knew was going to be necessary and because either you can't get it - I've never seen that happen but that it takes time to get, the whole thing grinds to a halt for some period of time.

So it's all necessary. It's a complex array of stuff that you pull together. It's why they pay outrageous fees to make these things happen.

Having said that, your sense is right but what's the order and how do these things line up and I think, you know, you might line up early things which are just easy. Why not? As long as we've got time we'll do that.

But in terms of the really - the threshold things that's, frankly, something that's going to be project by project by project.

You know, if there is a state environmental issue that was - impaired or impeded other efforts then, well, everybody learned that lesson - you better take care of that first.

If it is a power - if your business plan is that before you contract a project and you've got only one group to talk to and they're - they have a limited attention span - they might be talking to someone else - then okay, that's what you're going to have to have.

And in the - in the conventional power world and also the renewable power world, a power purchase agreement is very often the very first step. That's the interesting thing. But it's case by case.

MR. MAYFIELD: Can I jump in and go to Mark and then I want to go back to Anneliese before a really important event gets her pulled away.

MR. MCBURNETT: Just - yes, is the COL important - I guess we've answered our own question. I'm not pointing any fingers here. I'm going to say our and it's ours - everybody in this room. If we look at our track record on issuing COLs in this industry. We kicked off the renaissance of 2007, the first submittals. We're in 2013.

Two have been issued and what's the schedule on the rest of them. There's lots of reasons for that so I'm not pointing at anybody here.

MR. MAYFIELD: I was going to say I've got my own view on that.

MR. MCBURNETT: But if we sit back and look at it the track record for issuing COLs from the Wall Street perspective it tells that story. It says the COL is a high-risk evolution.

Why should I - why would I as an investor want to bank on getting a COL? You know, we're in this little closed cluster in this industry that everybody tries to understand that the ins and outs of what all - what all is transpiring. But, you know, it's - why would a financial guy trust us.

MR. MAYFIELD: Let's go back to Anneliese, if we could please. I don't mean to cut anybody off but I don't want to lose her opportunity to ask questions.

MS. SIMMONS: I just really have two more questions. The Commission actually issued guidance on this in 2001 and, John, you were in a meeting just like this in 2001.

I don't think that's the same suit. I hope not. But it was actually transcribed.

And the Commission indicated - stated specifically in the SRM to maintain financial qualifications for private merchant plants.

So what I heard you guys say - I have to make sure I get this right - is that you agree with that, that the merchant plants will be meeting the requirements and I'm going to try to quote you, Dave - I might get it wrong - that the finding - okay.

So the way that the staff used the requirements is that we need to make a finding and then it'll be verified by license conditions. I always believed that. We always believed that.

We always presumed that you would get a conditional funding agreement. Always - they're always conditional early on and then we would be able to verify the details prior to construction.

But you said that we will make a present finding based on the process, okay. Now, for utilities, okay, we make a finding based on legal documentation that they have the ability to have rate recovery, okay. So there's paper that we can verify.

Am I - am I understanding you right is

that we would make the finding based on the written - the documentation would be the written license conditions which may be site specific but it would be based on the process because we would not have identified sources of funds. Is that right?

MR. J. MATTHEWS: Your finding is that if the license condition is satisfied the regulation will be satisfied, okay, and the regulatory requirement says that you have to demonstrate reasonable assurance of obtaining funds and identify the source of funds.

If you satisfy this license condition you will be able to - you will look at the documentation and all the sources of funds will be identified and there will be more than reasonable assurance of obtaining funds. It will be a fully funded project.

MS. SIMMONS: So you're saying that that is the way we should interpret the current requirements?

MR. J. MATTHEWS: Yes.

MS. SIMMONS: Okay.

MR. REPKA: The commitment in the application is -

MS. SIMMONS: Meets the standards.

MR. REPKA: - is that - correct.

MS. SIMMONS: Okay.

MR. REPKA: That with the license, can back up by the license condition.

MS. SIMMONS: Now, we have never licensed a merchant operator in this country - a power plant.

MR. REPKA: Actually, you've licensed about 40 - more than 40 units to operate on a merchant's basis. I mean, nearly -

MS. SIMMONS: Due to -

MR. REPKA: Due to license transfers, yes.

MS. SIMMONS: Okay. Due to license transfers. Okay. And we do have experience enough. I mean, this is a new thing, okay.

So my question to you is one of the questions that came - that we posed to you was wouldn't this be a better process. If we are going to - because from the staff's perspective which may be wrong we feel that that is a different process than what we envisioned.

Wouldn't this be better to go out for notice and comment and try to get a better product if we are proposing something to the Commission that we believe is a change from their SRO?

MS. GINSBERG: I don't think that question was posed, first of all. But second of all - second of all, I think we've been very transparent in what the issue is.

We've had now two meetings. The public has been involved in this. Anybody who wants to file comments is more than willing to do that.

You're going to take this set of options as I understand it, Ho, to the Commission and allow them to do as they see fit. The Commission could well choose to do that.

This is not a rule making. This is simply a set what - at least what we've asked for is Commission guidance to allow the staff to feel more comfortable taking whatever steps the Commission directs.

MR. NIEH: And on that, and I think we would consider that aspect internally as we mull the options as far as balancing the needs of our issues with respect to what we want to achieve in the -

MS. GINSBERG: Sure.

MR. MAYFIELD: The Commission has never been bashful when they don't feel like they have -

MS. GINSBERG: Sufficient stakeholder input.

MR. MAYFIELD: - adequate information input. They've never been bashful, going back 25 years of experience with. They've never been bashful about telling the staff to go get additional comment.

So while I appreciate the notion that well, let's make sure that all stakeholders have an opportunity to weigh in on this, there's a process that we'll go through and I do appreciate Anneliese's concern and we'll figure it out and I'm sure the Commission will help us as we need help.

MR. TURTIL: Can I ask a question? Rich Turtil of NRR. In terms of I've been getting a good sense of lining up, I guess, sponsors, et cetera, for construction, what do you all envision? What is envisioned in terms of providing to the regulator, NRC, I guess forward, years out in terms of operation?

Of course, with the utility you've got potential - you know, you've got rate agreements, PPAs, et cetera.

Is there - is there - I'm just trying to understand both our views and your views on the sense of how far out are we. What kind of evidence or how far out might you provide a sense that we've got two years covered, one year covered, three years covered, that would help me understand. Does that clear -

MR. J. MATTHEWS: No. I'm not sure what you're - are you talking about the operations mode?

MR. TURTIL: In the operations mode.

MR. J. MATTHEWS: Well, the regulations require projections over five years and I think for NINA we submitted 10 or 15 years in projections.

MS. GINSBERG: Ten.

MR. J. MATTHEWS: Ten? Ten years in projections. But, you know that's - I mean, the revenue test and the test that's been employed for the operating fleet, I mean, is pretty - I mean, that's - the agency has a lot of experience doing that.

It's approved a lot of transfers to merchant generators on the basis of that and there has not - you know, I'm not aware of a situation that this agency has encountered where a merchant generator has become a problem from a financial qualifications perspective.

The most recent bankruptcy we've had was a cost of service utility - Pacific Gas & Electric. So, I mean, the experience has been quite good. So I -

MR. REPKA: This is Dave Repka. Let me just add the additional perspective. You have to look at this holistically and I think the Commission has said this in the context of even its exempting electric utilities in terms of financial qualification operating license reviews is a recognition that the

NRC's regulatory program is looking at day-to-day operations and if there's under funding in the operational space the expectation is that it'll become manifest through the inspection program.

And I think that's really when you come down to a safety - an ongoing safety that's really still the key.

MR. J. MATTHEWS: That's the key point and if there's a safety problem the unit will be shut down. In the case of the Texas plants, the decommissioning funding is backed up by the rate payers in Texas.

So, you know, there are, you know, lots of things that protect the public health and safety here from that perspective.

MR. MAYFIELD: Okay. I want to come back to Anneliese and make sure we - just in case you get a phone call.

MS. SIMMONS: Thanks.

MR. MAYFIELD: You're good?

MS. SIMMONS: Yes, thank you.

MS. KIRKWOOD: I want to follow up on Ho's questions about other industries where this comes into play.

Are you aware of any other examples where the regulator has a financial qualifications requirement and the project finance needs a permit to close?

MR. HANSEN: You know, it's often the case that the regulator, the folks who are issuing the license, that it may be different than the regulators, right. Maybe the -

MS. KIRKWOOD: License. Okay.

MR. HANSEN: But the - it's often as a precondition to be on a short list of bidders or something. There may well be financial capacity requirements.

So the answer is if you were to look at situations with folks bidding, again, a lot of - my experience there is international.

A lot of it has occurred domestically in state-supported roads projects but you may well have a financial capacity requirement for the sponsors.

But at the end of the day, they're looking - all of these are expecting a project finance approach. That's why, because I was - from a plain language perspective, having a reasonable assurance that the project financing as a strategy gives a reasonable assurance that the stuff will - that the funding will be there when it's needed there's no guarantee, and there are projects that have been assembled, gone out to bid, got started and never closed.

But was there a reasonable assurance, a reasonable expectation? It may have a lowered standard but it would - of course, none of the governments, none of the sponsors. They'd be wasting their time if they didn't share that sense, and given the track record globally on these projects getting done I think, you know, depending what you mean by reasonable assurance I think people said yes, or we wouldn't - we wouldn't do them. We wouldn't bid.

We wouldn't - we wouldn't take that approach in trying to attract developers to our projects. So I think the answer would be you would find in the bidding process often some financial threshold.

But it wouldn't be tied to the funding of the project itself. It's basically to avoid Moms and Pops from clogging up the bidding process.

MS. KIRKWOOD: So more of a barrier to entry -

MR. HANSEN: Yes.

MS. KIRKWOOD: - into get into the bidding.

MR. HANSEN: I think that's right. I think that's right.

MS. KIRKWOOD: Rather than a -

MR. HANSEN: And you'll that with power projects, roads projects, airport projects across the board.

MS. KIRKWOOD: Our regulations are premised on this idea that there is a connection between having adequate funds and ensuring safety. Do you think that that is a valid theory?

MR. HANSEN: Adequate funds and what?

MS. KIRKWOOD: And ensuring safety. That if you're -

MR. HANSEN: Oh, ensuring safety.

MS. KIRKWOOD: - if you're running short on money you're more likely to take safety shortcuts. So that we're looking to make sure you have enough money not to take safety shortcuts.

MR. HANSEN: Aside from the general obligation to comply with regulations and law, which everybody has, understanding that these kinds of problems could run into the failure of the project, most of the lenders are going to rely on the expectation that safety issues are taken very seriously by the equity investors because but for that they'd lose their shirts.

For that - but for that they'd lose 100 percent of their equity investment, which is pretty substantial.

So, again, looking to the waterfall use of funds you can be pretty sure that addressing safety issues, perhaps a pop-up along the way, is going to be extremely high in that waterfall it would be shocking to imagine that the lenders would take a position that well, let's worry about that after you've made your next quarterly interest payment.

So it sounds like the kind of thing that might well be negotiated kind of case by case but will resources that are appropriate to ensure safety be lined up? I can't imagine they wouldn't be. It wouldn't be financeable unless it were.

MS. GINSBERG: But there's also - they've used the word holistic and I think it's critically important to understand that financial qualifications is not the only means by which you establish safety.

There are many, many, many other processes and procedures and approaches, evaluations, et cetera, that take place. You've got the ROP process.

You've got any number of other processes that are at least a supplement if not, in my view, perhaps even more important than looking at financial qualifications kind of, you know, in isolation.

And I think it's very dangerous for us to look at financial qualification as the single most important feature of public health and safety.

What the NRC does is it regulates any number of aspects, financial qualifications being an important one but not the only one.

MR. MAYFIELD: Based on your international experience - there was a conference in the U.K. some months ago looking internationally at how nuclear projects are financed in some of these new interned countries.

Is there anything from the international experience that bears on this that we could use just as insight?

MR. HANSEN: Interesting question. I mean, it's a new frontier, right, and I'm not a part of it.

So maybe other folks in the room might have been. One thing that is clear is, you know, there is no history of using project financing to finance the construction of nuclear plants.

It's what everybody is looking at right now internationally. That's what they're focused on in the Middle East.

It's what the - Korean Ex-Im Bank was mentioned before. They hope to be a leading lender in that sector and they are presuming that these will be done on a limited recourse basis.

So I think it's a good instinct. There may well be. Maybe it's early for the lessons to be learned but there may be guidance out there.

I'm fairly confident that you'll find the guidance encouraging in the direction of taking project finance seriously as a way of funding this.

MR. J. MATTHEWS: The Emirates Nuclear Energy Corporation project is pursuing a project finance.

U.S. Export-Import Bank has committed, I think, over a billion dollars of lending into that project and Korea Export-Import Bank has committed over $20 billion into building a four-unit - expanding that project from two units just built by the government to four units built on a project finance basis.

MR. MAYFIELD: I wonder - maybe collectively it might be work poking at Ed McGinnis from DOE because he looks at principal in that conference and see if there are any insights that - so it's not something you should do versus us but collectively.

So they need to find a way to have that, just to see if there's anything that could be of value in terms of what's going on in the international community. I wasn't aware the UAE approach.

MR. NIEH: Just a couple comments on this topic and the questions. So, clearly, we have a lot of different views on safety and I would just take this dialogue here and I wouldn't read into any staff position at this point.

Again, we're trying to just understand things and we are a safety regulatory agency and the financial area, I'll say, isn't a core competency. In my experience here at the NRC we're a lot of times used to dealing with pumps, valves and reactor cores and things like that.

But, again, we want to tie that back to safety at some point and, again, this will help us. Having the discussion here, I think, will help us frame the issue for the Commission. So I understand we have different views here.

But I wouldn't say there's, you know, a staff position at this point in time. Obviously, we have different ways of looking at this.

But I did want to ask - I did look through the PFS Commission decisions last night and the one thing I noted besides the difference between Part 72 and the language in Part 50 is that the Commission in its decision acknowledged the different levels of risk associated with the fuel storage facility and that of the reactor.

So I know you use PFS as an example of a predictive licensing condition to meet the financial qualification requirements.

Can you give us a sense of the Commission's view of the risk as far as how you interpreted that between a fuel facility and the fuel storage facility and the reactor facility?

MR. REPKA: This is Dave Repka. I'll just start by saying that I think that the acknowledgment of the risk is sort of acknowledging that there is a difference between Part 50 and 72 and I'm not sure I'd read much more into it than that in terms of the legal issue of whether the - whether the condition is a viable legal approach.

I don't think that changes the outcome. It should be equally viable in both contexts. Both Part 72 and Part 50 have language in the test that talks about predictively obtaining funds in the future.

And I think in terms of the heightened risk, you know, I think it really just goes to the rest of the regulatory program is ultimately going to be very different as well to address that risk.

MR. J. MATTHEWS: Also, I think it suggests that we ought to have a more robust license condition for a reactor, okay, than just I'm going to have some contracts to generate revenue.

So if I was giving you - if we were proposing the same license condition as PFS I'd say well, when we can - when we can show you we've signed up, you know, PPAs for half the plant or something like that then I satisfy the condition and then I can move forward.

We've proposed a much more robust license condition than that, not only that - I'm not only going to have to have the PPAs, I'm going to have to have the banks lending the money.

I'm going to have to have everything else put in place in order to satisfy this much more robust license condition.

The other perspective I wanted to offer though is, I mean, I think we all intuitively see a correlation between safety and having adequate financial capacity.

But this agency has done studies in the past. I know Chairman Selin was worried about this back in the 1990s and he posited, you know, is there a correlation between companies' capital budgets for nuclear power plants and their safety performance.

And the study that came back as far as I remember it was there were plants that spent a lot of money that performed like crap and there were plants that spent a lot less money that were top performers.

We really couldn't find a correlation between the amount of resources and the safety performance. There are lots of other factors that are far more important than the dollars and cents.

MR. NIEH: And I think on that comment, I do share the view that you mentioned, Ellen, that, you know, FQ was not the single factor that -

MS. GINSBERG: It's one of several.

MR. NIEH: It's one of many. But, again, it's something that I think we ought to look at it and tie it back to safety. Thanks.

MR. HANSEN: And, you know, maybe just to toss a project finance perspective on that, it's confident if this were a group of the lenders around having a kick-off meeting on the project, with all respect to the source of the cash flows which will be critical. They'll be concerned of how the power's going to be sold, they're going to be concerned about the construction costs.

But I - in everybody's mind, spoken and unspoken, it's going to be oh, my God, this is a nuclear power plant - let's think safety.

You can be sure that the preoccupation of the lenders with safety will be maybe not statutorily the way you're preoccupied but it's going to be their absolute priority. It would be on the table.

MR. J. MATTHEWS: It's the way they it's the way they mitigate the risk. I mean, I gave a presentation to a private equity company that was looking to buy nuclear. It was buy a fleet of generators that included very significant nuclear and this was, you know, 10, 15 years ago and, I mean, that was - their primary concern was oh, my God, nuclear - we're going to own a nuclear power plant.

This, you know, we're a financial institution. We don't want to do that.

I think the most persuasive thing that kept them in the game looking at the project was, you know, looking at the safety indicators and the performance of the industry.

I mean, I just pulled, you know, literally, performance indicators and showed how the performance in the industry had changed between the early 1980s and the early 2000s.

And, you know, they were very concerned about nuclear safety and seeing that the industry was performing well was one of the things that helped them, you know, think, yes, we could come in and invest in nuclear.

MR. SPENCER: I had a question about the different factual situations - the different applicants phase.

In an STP situation one of the difficulties is that you had project sponsors and some of them would make the decision not to continue financing. Whereas in other situations you - and the difficulty for that is STP is saying well, we will go out and find investors and NRC doesn't know who they are right now and so we can't really evaluate their financial strength.

But I'm wondering in other situations with other applicants whether the project sponsors you know who they are and you can actually - even if they haven't made a firm commitment to construct you actually know who the players are and can do financial review of those sponsors now versus later. Or is it a situation where most of those project sponsors in terms of equity contributors simply aren't known?

That's just a question generally for the industry representatives.

MR. CAVERLY: Okay. I'll add a little bit. Mike Caverly from PPL. I think generally across the board you can't say with certainty on that now. That will be one of the areas that will be confirmed at a financial closing.

Right now, PPL is the only equity sponsor for the development of the project. That's likely to change before we reach a financial closing.

Once we reach a financial closing the NRC viability, the financial viability, of the additional equity players will be part of the financial closing that will be confirmed on that day or at that time.

MR. SPENCER: Okay. Is that the case with the other applications too?

MR. J. MATTHEWS: In order to put the deal together in the COL at this stage in the industry I mean, I think, you know, South Texas project, with the amount of money that had already been spent on the project, with the schedule that we had for getting a COL in early 2012 and, you know, if we'd have gone and gotten the conditional loan guarantee from DOE in March of 2011 instead of Fukushima happening, you know, we would have been in a much better position at least to have, you know, the DOE term sheet and all that.

But we still would have been pulling together further project participants and going through this evolution of changing sponsors and some of which may have even happened after we had the COL.

In fact, we were planning for that two years ago that, you know, what's the timing we may - maybe we will bring in some sponsors after we have the COL and we'll just go through the 5080 amendment process and the NRC will look at those then rather than have them come in at the eleventh hour and then somehow disrupt the schedule for the issuance of the COL.

So, I mean, you're going to expect that. In today's environment, though, all the license applications that you're looking at that are not from cost of service utilities I mean, what are we doing?

Are we wasting our time here reviewing these applications?

I mean, why do we have - why are we spending all this money and all this effort and all of the agency's resources if there's no answer to this question?

Because if the answer to the question is we are not going to give you a license until you have identified all of your project sponsors and all of your money, I mean, we just ought to quit today.

MR. MAYFIELD: Well, let's not get too carried away.

MR. J. MATTHEWS: Look, I said that - I said that in the summer of 2011. I said that in the summer of 2011. If we can't use a license condition our project is dead.

MR. MAYFIELD: So I understand the sentiment but that's why we are putting together a paper for the Commission.

MR. NIEH: But I think the letter clearly tees up the issue because the staffs intend to kind of present the facts to the Commission and the staff's views, of course.

But I'm just curious - in a license transfer example is the proposal in the NEI letter and also I looked - I did compare the NINA letter and the NEI condition.

They're slightly different but I just wonder in those license condition - let's use the one in the NEI letter of November 2012 - is what's proposed as a means to meet the requirements is that similar - is that on par with what we've done in the 5080 license transfers for merchant plants or is it a - I guess maybe I'm -

MR. J. MATTHEWS: It's different, I would say. I mean, and the license condition is really more geared to the construction and demonstrating the adequacy of funds for construction. So it's kind of hard to make that comparison.

You know, I think that - you know, my view is that most of these projects would be able to meet the 5080 test in one fashion or another because under the - under the test that we've used in license transfers, you know, you show that you have adequate revenues and if your revenues - if your performance don't show that, you know, your revenues are likely to exceed your cost then you use other means like parental support arrangements or things like that and a licensee can say well, before we begin operations we'll put in place a parental support arrangement.

I mean, because - and in some ways it's easy to say because I know the banks are going to make me have, you know, my debt reserve, my working capital line of credit.

I mean, I got all these things I have to have to satisfy the project finance anyway.

So having financial support to show that I'm going to be able to cover my costs to operate - during operations isn't the - really the X that I'm most concerned with myself.

MR. REPKA: I think - you know, I haven't looked at license transfer conditions in a while but I think they're much simpler.

They relate to notification of closing and usually there may be something in there about the decommission fund being transferred to the new entity and if there's anything there.

But they don't include anything related to operating revenues.

MR. J. MATTHEWS: Well, usually there's a condition. If you've offered a parental support arrangement, you know, so you have a conditional commitment from a parent company to provide resources of up to $200 million if needed for operations, that will be a condition in the approval.

MR. NIEH: One follow-up question. Several times in the presentation and also in the letter you mentioned that the license condition is more robust than perhaps what we would do up front given the COL and making the financial qualification determination at the time of issuance rather than via license condition.

Can you explain in simple terms for me why it's more robust - why the license condition is more robust?

MS. GINSBERG: Sure. I'll start and I'll ask my colleagues to jump in.

MR. NIEH: Yes. Thank you.

MS. GINSBERG: But I think Ken has done that. I think what we're explaining here is that by the time you get to financial close of a project finance the amount of analyses, the extensive reviews, the financial modeling, all has been extraordinarily in-depth, comprehensive, et cetera, et cetera, et cetera.

And so what you arrive at is a series of financial institutions that are willing to take part, that are going to put money on the barrel head, right, based on their analysis which is a very in-depth analysis of the financial viability. I'll now turn to Ken. But that was the purpose in bringing him in.

MR. HANSEN: Okay. Well, yes. Other folks here will have to tell me the level of obligation that someone with a COL, say, a utility, has.

They have - may have by my understanding the right to pass things on to the rate base but there's still a process. It's conceivable that for whatever reason there could be rebellion and it just wouldn't happen.

At financial close you have legally binding enforceable obligations and, sure, maybe a bunch of banks will breach those obligations.

Maybe a bunch of investment grade companies will breach their obligations to provide the equity that under their equity contributions agreement they're obligated to do.

But, frankly, even if they do they're liable for damages and that's just not how it works.

We pretty much live in a country - increasingly a world but at least a country where these contracts are taken very seriously and I think having an obligation to do something is a step up versus just having an opportunity to do it.

MR. NIEH: So if I could paraphrase that back, what I heard was that it's more robust because the amount of analysis, vetting and scrutiny, if you will, of the financial instruments that would fund the project will have, you know, in this case with the license condition would be at a level that's much higher than if we were just doing a straight up COL.

MR. J. MATTHEWS: Anything you've ever seen. Anything you've ever seen before.

MR. HANSEN: I would say - I mean, you take comfort from all of that but the thing that really makes it more robust is now you have capable players who are obligated to fund.

MS. GINSBERG: And you've got - and you've got essentially what John has created - a way to verify that.

So it's objective. Either you do or you don't have whatever the level of funding is. Check that box. It's right here. It's in front of you. You've got it and so there's no guess work there.

MR. REPKA: But in a simple minded way it's the process that's more robust. And take John's PFS example whereas have a number of contracts. Okay. There's players involved in those contracts but it's - here we're talking about a project finance process that includes a large number of stakeholders, all who have motivations to ensure the viability of the project, to ensure really the safety and integrity of the project.

And so it's that - it's robust, the

license condition itself, which is simply to confirm that that process has been completed and has worked -

MS. GINSERG: And yields the result.

MR. REPKA: - and that's - so the words in the license condition are not necessarily robust. By design they're simple. They're confirmatory. But it's the process that's more robust.

MR. J. MATTHEWS: And what NINA has proposed is the project - that the project finance would close and that the project finance would be committed to include at least 50 percent funding by United States Federal Finance Bank or another governmental entity.

So we're basically saying we're not just going to - you know, I mean, there's an example where we're proposing - we won't just close any project finance.

I think any project finance is more than good enough but, I mean, we're saying a project finance that the United States government has signed off on, that the United States government itself is obligating billions of dollars to and if that is not reasonable assurance I just - I'm confused as to what the issue is.

MR. MAYFIELD: Okay. Can we come back to

this end of the table?

MR. NIEH: I had a couple more but let's spread it around.

MR. HANSEN: Mike has a question too.

MS. KIRKWOOD: I have - I thought I heard you say in your presentation that NINA is - or I guess I'll ask you.

Do you think that NINA should not be considered to be a newly formed entity or other people like it once they've been in the application process for a certain amount of time?

MR. J. MATTHEWS: Yes.

MR. SPENCER: John, I was reading the NUREG. 1577 outcome quotation that distinguishes between newly formed entities and established entities and it describes established entities as follows.

An established entity is a company that has an established and proven financial, construction, operational or decommissioning record of five years or more for managing or owning a nuclear power plant or has an established record of raising managing capital similar to the one required to fund nuclear power plants, construction capital additions and operating and decommissioning expenses as appropriate or the licensee stipulating a share of those operating expenses. So would you say NINA fits that definition?

MR. J. MATTHEWS: Put together a billion dollars for the project and spent it. I actually don't think it matters because I think we'll satisfy - I think the license condition satisfies either way. So I really don't think it matters.

MR. SPENCER: Okay. There was a - NEI's letter to the Commission mentioned the definition of construction in 50.2 and I noticed - I was thinking probably - I'm sure that in this letter they cite 50.10 and those are two different definitions for two different purposes.

And I just wanted to get a sense of which definition of construction industry thinks is the appropriate one to use in terms of, you know, construction will not commence until, you know, these conditions are satisfied.

MR. REPKA: I believe the reference would be to NRC license construction, wherever that definition resides. The idea is that preconstruction activities would precede the NRC license construction, that which requires a COL.

MR. SPENCER: That 50.10?

MR. REPKA: Presumably. I don't have that in front of me.

MS. GINSBERG: I think we cited 50.2. We'll go back - we'll go back and look at it.

MR. SPENCER: Okay.

MS. GINSBERG: That's a fair question.

MR. MAYFIELD: Anything else down here?

MS. KIRKWOOD: I'll ask one other question that's slightly away from the license condition.

But I guess I heard you say that there's a lot of other mechanisms we have for ensuring safety and I heard you say that the lenders have this incentive to ensure safety regardless of what our financial qualifications and requirements would be.

So thinking more broadly, do you think that there is a purpose in having - in the NRC having financial qualifications requirements, given that we don't care about the viability of the project?

MS. GINSBERG: Are you asking me?

MS. KIRKWOOD: Or any of you.

MS. GINSBERG: Yes. Well, I'll start. Yes. I mean, I think Tim whispered rather loudly that Congress has decided - Congress has decided that at least the NRC has the authority to look at these - to look at these issues.

I think there are probably multiple views about the relationship between financing - your financial viability and your operation. I think John is right.

I think there - you could operate on a shoestring and if you have the right culture, you have the right approach to your processes, you probably could be very efficient.

I think there are other entities that probably spend a great deal and maybe their performance isn't as - isn't as perfect.

But I think the key is that the NRC has multiple ways of evaluating project safety, evaluating nuclear safety, and that's the important part. It's if financial qualifications are included in the regulatory process as they currently are I'm not sure I have an objection to that.

But I want to be sure that we don't over emphasize them to the detriment of considering the other processes that are in place. That's all I have.

MR. REPKA: I've got questions on the license condition but I can let other people -

MR. MAYFIELD: Why don't we come back to it? Ho, you had something?

MR. NIEH: I may have gotten this already but in your letter, Ellen - it's on Page 3 here - it says lenders - I'm going to paraphrase. Lenders participating in large infrastructure project finance including USFFB and the Department of Energy will insist upon issuance of a COL before financial closing. Do we have that in writing anywhere or -

MS. SIMMONS: I think we have a term sheet, don't we, John?

MR. J. MATTHEWS: That should be easily confirmable with DOE. Actually, I think the term sheet said the same there.

MR. NIEH: I just don't know what a term sheet is.

MS. SIMMONS: So the term sheet is what we -

MR. J. MATTHEWS: No, and just to be clear we - NINA submitted the draft of the DOE term sheet for a conditional loan guarantee that we had negotiated as of February of 2011.

That's a proprietary document and the details of the terms and conditions are proprietary to NINA. But I think we're okay with disclosing this fact.

(Laughter.)

MR. NIEH: Okay. I just wanted to follow up on that -

MR. J. MATTHEWS: Yes.

MR. NIEH: - or the insistence, if you will.

MR. HANSEN: And then apropos to your earlier question on the timing of these things -

MR. NIEH: Yes.

MR. HANSEN: - it's a condition - this term sheet is attached to the conditional commitment which hasn't been issued yet, as far as I know. So it's early in the process as a requirement.

MR. J. MATTHEWS: But it's in order to get to financial close - in order to get your money.

MR. NIEH: You got to have the money.

MR. J. MATTHEWS: You have to have it in order to get your money.

MR. NIEH: Okay. One other - Dave, in your discussion on the slides related to predictive licensing you noted emergency preparedness as an example of where - use that emergency plan that will be tested periodically and that will provide reasonable assurance technical safety is carried out.

So in this case I just wondered, you know, here is the license condition. I don't - we don't - we're not going to receive anything up front other than the license condition, is that right, with this proposal? Like, there's no plan or anything like that?

MR. REPKA: No. Other than what's in the application which say here's what we know and it's going to be a project financing transaction. So, yes, you get what's in the COL.

MR. NIEH: Okay. And then -

MS. CUBBAGE: You mean to the project cost?

MR. REPKA: Correct. And if you look at our matrix of compliance that will show you what would be included in the application.

MR. NIEH: Okay. Okay. And then the other part was, again, emergency preparedness there's periodic - the requirements for periodic exercise and things like that.

Do you have any thoughts of any post-licensing reviews beyond normal oversight, obviously. You know, if there are problems they would manifest themselves in operational or equipment issues and things like that and we have inspection and enforcement processes to address those things.

But there - in the area of financial qualification do you all envision any other future monitoring after issuance and licensing or -

MR. REPKA: Nothing beyond which the NRC

would exercise their normal regulatory course, whatever that might be, through inspection of programs or whatever.

You know, if the NRC felt it necessary to do some kind of monitoring it certainly could do that or it would be within its authority to do that.

The point is though that there is - at licensing there is a transition from the prelicensing findings to the - to the inspection oversight function. We're not proposing anything but it's certainly within our -

MS. GINSBERG: That's correct. We have -

MR. NIEH: Okay. Thank you.

MR. DUSANIWSKYJ: I've just got one question, generally. You know, I'm just a simple economist.

MR. MAYFIELD: Could he identify himself?

MR. DUSANIWSKYJ: Oh, I'm sorry. My name is Michael Dusaniwskyj with NRR and I'm just - you know, with everything we've been talking about, and you kind of alluded a little bit to it and I'm just curious, the STP project as of now stands and I recognize that Mr. Hansen pointed out because everything you talked about was exactly what I did in atomic projects way back before I came to this life.

Does STP at this point have a viable plan with enough return on investment that thrift institutions are interested in this project or not?

Because you're always saying that the COL is of vital importance and my only question is does that preclude the fact or does it not matter that in STP's case do you have thrift institutions who believe that the return on investment is viable?

MR. J. MATTHEWS: We do not right now. If we had a COL, we might.

MR. DUSANIWSKYJ: Why would the COL preclude a return on investment?

MR. J. MATTHEWS: When we have the COL then we can - we can go to market and look creatively to find additional sponsors and lenders to lend in the project.

MR. DUSANIWSKYJ: Does that mean -

MR. J. MATTHEWS: But let me back up because in one sense I object to the premise of the question because you appear to be saying, well, if the answer to that is no then we shouldn't issue a license and my response to that is that's not NRC's job.

NRC's job is not to only issue licenses to people that absolutely are ready to build or plan to build.

I mean, the classic regime is the state regulators get to decide, you know, what they're going to spend money on to build plants. NRC licenses them and handles the nuclear safety aspect of it, okay.

In a merchant world it's the developers get to decide when they want to build and I think it's perfectly reasonable for the agency to issue a COL to somebody who says, I might want to build.

I want the license. I might want to build. I'm not telling you today that I'm going to build.

But I think if I get a license there's a good chance I will, and that's what I've spent a billion dollars for is the option value to build.

MR. T. MATTHEWS: The cost of pursuing a COL is far more than just speculative interest and possibly constructing.

MS. GINSBERG: But the fact is that your question is one of do you or don't you need this COL in order to go get finance.

MR. DUSANIWSKYJ: Yes.

MS. GINSBERG: And the answer from everyone that we've talked to on Wall Street is no one is willing to risk the company, to risk an enormous amount of money, on a process that they believe rightly or wrongly is uncertain.

So what this COL does is it removes that uncertainty which, in the past, has been a significant issue.

If you look at PS&H, if you look at many of the previous licensings where you had a fully constructed plant and then you had to go through the operating license process, the adjudicatory process, those were fully constructed, very large carrying costs that in some case cost the company everything because of the "uncertainty" of the process - the vagaries of the regulatory process.

So while we could all agree that that's been resolved and that Part 52 is a much different process, Wall Street and other investors want to see that COL to demonstrate that fact.

And so it's a pretty simple straightforward answer to your question about the threshold nature of the COL.

MS. ROMA: Just to add to that point that - this is Amy Roma from Hogan Lovells, I believe it was either at last year's regulatory conference or at last year's Platts conference there was a investor that talked about regulatory risk and investment.

Does anybody remember this? And jog my recollection - it was in the February/March time frame - who directly addressed regulatory risk and why investors are not investing in nuclear power plant projects because of the regulatory uncertainty of the NRC.

And one of the things that he did address was that upon issuance of the COL that regulatory risk went away for the investor's purpose and investors were more willing to come to the table.

So if I can find those slides I'll forward them.

MR. MAYFIELD: I think that was Platts.

MS. ROMA: Okay. So it may have been at the Platts conference but I think a lot of the people in this room went to - went to that.

MR. DUSANIWSKYJ: Is the uncertainty around the COL a parity issue or is it a question of how long it takes to issue?

MS. GINSBERG: Both. Absolutely both. And history would demonstrate that both are relevant questions.

MR. DUSANIWSKYJ: Would you at least - let me say this. Is it nonfinancial issues that usually elongate the process?

MS. GINSBERG: It doesn't much matter.

MR. DUSANIWSKYJ: Not to Wall Street.

MS. GINSBERG: What Wall Street says is Wall Street hates uncertainty and I don't think it's an overstatement to make it that bluntly.

I mean, Wall Street wants to know what's going to happen at each step. When you look at the elections Wall Street looks like a sawtooth because they don't know what's going to happen with the next administration.

It's really not that different here and every time you go to a financial conference - Amy is exactly right - one of the speakers routinely talks about mitigating regulatory risk and perhaps the best way to mitigate regulatory risk is to eliminate it by having your permit, your COL, in hand.

I mean, that's really the bottom line here.

MR. MAYFIELD: If we can - if I can come back to my discussion, the length of time to get the COL is totally independent of where they are with the financial piece.

It's been the technical, the environmental permitting. It's sort of between us and the COL applicant and the financial piece is completely separate.

MR. DUSANIWSKYJ: And Mike, I'm glad you said that out loud because that's usually something that's never really said that needs to be said out loud.

MR. MAYFIELD: It - where the finances go that's somebody else's problem, fortunately. Where the COL process goes is between us and the applicant and there are a lot of mitigating factors in that.

But project finance hasn't been one of those issues, to the best of my knowledge.

MS. GINSBERG: Right. And to be clear, there was nothing that at least I intended to impugn the process as it currently exists.

It was much rather to suggest that perceptions are long established and long remembered and so they persist in the financial world.

MR. MAYFIELD: And we are painfully aware of it.

MS. GINSBERG: As are we.

MR. MAYFIELD: Ronaldo had a question.

MR. JENKINS: Ronaldo Jenkins, NRO. I just want to dovetail on Ho Nieh's question on monitoring.

You provided a chart that shows the - in actual numbers the amount of financing that would in fact be part of this license condition. Given that the COL, that once it's issued is over a 20-year period, we all know costs change and so presumably is this something that you plan to address or is it already in what you have proposed?

MR. J. MATTHEWS: It's in the process because the project finance requires that the lender's engineer update the cost estimate.

So and my example here is just a hypothetical and what I'm - what I'm trying to show and I just - I didn't want to make it so complicated as to - in the project finance they look at the use of funds and the sources of funds.

So they're going to have a list of uses of funds and that's going to be updated with a number that is updated by the lender's engineer.

And so in this case that number is $7.7 billion so you go in and you say, where's the updated cost estimate. That's the number, $7.7 billion. Well, now what I need to do is verify that there are sources of funds that add up to at least $7.7 billion.

And they may well add up to more than $7.7 billion but as long as they add up to at least $7.7 billion you can say the license condition is satisfied, in my hypothetical example here.

MR. MAYFIELD: Just to pursue that a little bit, because we've talked about it's an inspection kind of thing to close and a ministerial action here.

How much - when you've got your example laid out there - how much is that something where I can look at it and - by inspection? I've now just - I look at it and I know I checked the box, I think was somebody's example - versus now I got to get into this and look at okay, you now tell me where you're going to find - one of them was $1.3 billion. To what degree is the staff going to really need to get in and look at the viability of that number versus check the box? I come from the finance world so I blow things up for a living so -

MR. HANSEN: My instinct is, you know, that that may be for you to decide but if you were looking for a reasonable check, you know, one of the - one of the - in all the pile of paper that will be on the closing table one will be a certificate from that independent engineer, the lender's engineer, which will confirm that the capital committed to the project through debt or equity as in the budget at closing is sufficient to cover all project costs.

So it could be as simple as confirming that a certificate in that negotiated form has been delivered and you could get a copy of it.

MR. MAYFIELD: So then that's - the degree to which we buy that story is part of what we need to share back with the Commission.

MR. J. MATTHEWS: Yes, but I mean, I think the - I think the more - if I were you I would take more comfort in the fact that at the financial closing -

MR. MAYFIELD: As she walks out the door. Anneliese, are you good?

MS. SIMMONS: I am, yes. Thank you.

MR. MAYFIELD: Okay. Thank you.

MR. J. MATTHEWS: I would think you would take more comfort in the fact that, you know, there will be documentation for the financial closing. Usually they line up the room like this with folders that go across the entire room.

But you will be able to pull up a folder and say okay, here's the credit agreement - here's the note from U.S. Federal Finance Bank and it has a face amount. You look at it and say, that's the face amount. It's $4 billion and check it off.

And so each of these instruments is going to have a number on it and there's going to be documentation to verify those numbers at the financial close.

And so you - you know, if you want to - if you want to see where the $7.7 billion comes from and each instrument that feeds to that $7.7 billion you can look at each instrument.

MS. GINSBERG: But I think the question - I think the question is if we designate - and I'm using an example that's not on the criteria, on the list of criteria here - that you have to have some particular rating, a Triple A, whatever the rating is - and that exists with Bank A, Bank B, Bank C, you can't say well, I'd rather you pick Bank A than Bank C, right? That's -

MR. MAYFIELD: We're not trying to tell you how to do your business.

MS. GINSBERG: Right.

MR. MAYFIELD: It was we're into inspection, right. Is it there - is it what you said it would be - check the box, right?

MS. GINSBERG: Exactly.

MR. MAYFIELD: And I don't - I'm not trying to undermine the inspectors here or denigrate the important function they have. But it's not additional financial review. Otherwise, that doesn't satisfy.

MS. GINSBERG: That's right.

MR. REPKA: That doesn't work. But what - so what it comes down to is at the time of licensing the question becomes what do you need to know to satisfy your licensing review, and the regulation requires cost projection.

You have to submit your construction cost projections and that's going to be submitted and the NRC's going to review that and say, does that $7.7 billion look credible and they're going to look at the numbers and then come to the conclusion that yes, if they have $7.7 billion that's going to meet our requirements.

It becomes a simple matter of confirmation that that $7.7 billion has been provided with whatever other bells and whistles might need to be attached like if they're coming from investment grade institutions or something along those lines.

But the key is to define those criteria the way the agency does with an ITAAC to make it ministerial at the end of the day for the inspectors.

MR. MAYFIELD: Are you going to be eligible for -

MS. GINSBERG: No, no. I'm going to do that.

MR. NIEH: This is the last question I actually had on this issue and so, you know, you talked about making the documentation available for NRC inspection and review and again, it's a - your vision is a confirmatory ministerial look at this.

So is it - just so I understand it and we can frame this properly to the Commission, is it that 30 days prior to closing you're going say NRC, here's all this stuff - come look at it when you can.

And is that - do you envision starting a stop watch at 30 days? Are you waiting to hear back from the NRC or is the expectation that the NRC would give some confirmation that what you provided meets the license condition? Is that -

MR. J. MATTHEWS: Yes, because the banks aren't going to fund unless we have a piece of paper from the NRC that says you've reviewed this documentation and that you believe that if we execute this documentation the license condition will have been satisfied because they don't want to commit the billions of dollars unless they know that the project can be constructed and completed.

MS. CUBBAGE: But why would this be

treated differently than any other license condition? The lenders aren't going to need to see the verification of all license conditions and all ITAAC in order to close.

MR. J. MATTHEWS: Because this one goes so fundamentally to your ability to construct. I mean, the ability to construct is - it's a non starter. I mean, that's why you got to have -

MR. HANSEN: Look, there are two mechanisms here in the normal course. One is the agency who can speak to the issue and confirm that we're done. The second is that perhaps in such an objective condition that people can just look at the circumstances.

In that situation, the lenders are still going to want a legal opinion. So I think about the other approach and say we reviewed these circumstances and yes, we agree that that thing has been satisfied.

I can't imagine for something, with all respect to my firm and the other firms in the room, that the lenders are going to think that's good enough.

Also, there's just not enough track record for it to be sufficiently rote for the lawyers to just say yes, yes, yes, we're here. So I think the obvious way forward is for the report, the inspector, whatever you guys, you guys confirm were there.

MR. NIEH: One follow-up question. Where did you come up with the 30 days?

MR. REPKA: Well, and I was going to say I think embedded in that question was the notion that 30 days isn't going to be enough time and 30 days is negotiable.

But I think that if the applicant and the NRC do their job correctly at the time of licensing the point is to come up with criteria that can be confirmed in 30 days.

You know, John has talked about and Ken have talked about the stack of documents at the project finance close.

There should be no expectation that the inspectors are going to have to review all that documentation and read every single page of all of this.

What they should be able to do is confirm that there's notes and documents on the table that will provide for $7.7 billion in construction costs and that should be something that could be accomplished in 30 days or 45 days from that.

MS. CUBBAGE: I would want to make sure

that we're not unnecessarily setting up some sort of an impediment at that stage because from a regulatory perspective if a license condition process is ultimately viable and agreed to by the Commission, it would be our obligation to verify prior to construction, not prior to closing of the deal, from our obligation.

You'd be asking us for some additional regulatory certainty that's not necessarily - wouldn't necessarily be required on our part.

MR. REPKA: I think it's a bit analogous to - in the license transfer world sometimes we deal with transactions that don't require NRC approval yet we ask for a threshold determination that no approval is required because at closing all the parties want to know that you've got everything they may need to know.

And it does create a little bit of a burden just because of the expectations of the parties in the transaction and I think the NRC deals with it and the parties deal with it.

MR. NIEH: Let me just make a comment to kind of give you a gut reaction to this concept we're talking. We're in the thinking phase at this point.

In looking at the technical area where we don't license - license conditions like B.5.b is a great example that I've lived through, you know, industry came back with a guidance document that was something that we could look at in writing where NRC inspectors can go and kind of read the industry's guidance, go over to the facility and kind of look at how a licensee implemented that.

And in this case, again, what I was wondering in my mind that I haven't had a chance to talk with our staff and NRR is well, what - assuming if the Commission approved this proposal here how do our technical reviewers go out and do this confirmatory review - by which guidance are we going to apply, what standards are we going to use, et cetera.

So that's kind of one thing I'm thinking about in my mind is how our technical staff are going to go out, look at the documents and what level we look at, what are the specific things we're going to look at. So I don't know.

MR. HANSEN: In the spirit of sort of based on that, may I ask the question because there is an awful lot of paper in that room.

MR. NIEH: Right. Right.

MR. HANSEN: Very little of it bears on this question.

MR. NIEH: Right.

MR. HANSEN: Except to the extent that each and everything - - each and every item in that room may be a requirement for the closing. So without the smallest piece of paper you don't close.

But in terms of the substance of the volume of financing that's being committed, et cetera, making the commitment, there's not much.

What would be the problem with something so simple as your signing off beforehand on the form of that independent engineer's certificate or that you make sure it says the things you want to say and that that becomes a condition of closing?

I can - in the spirit of - I could imagine there might be two elements. One is that you have confirmed that you've received that certificate and the second is not your responsibility, not your control but people - but the banks being comfortable - the fact that the banks have issued the first disbursement.

So that the - so the moment they disburse the condition is satisfied and at that point the banks know they totally control that so they don't have to be nervous about that because once they're ready to disburse this won't stand in the way because it's satisfied as soon as they do.

That sort of thing gets set up for other purposes all the time.

MR. REPKA: And that passes the objective and verifiable standard for the license condition, and to your point about what standards would the inspector apply, et cetera, et cetera, that really has to be self contained within the license condition.

So the condition has to - has to be such that it says this is what you're looking for and it should be a yes or no. It's - this document has been signed. You know, you're not reviewing the sufficiency of that document.

MR. J. MATTHEWS: I mean, part of the problem is you have to use the license condition like NEI proposed here because we don't - we don't know what each of these documents is going to be.

So in other words, when I look at this list, you know, there might be working capital of $100 million. That might be one bank. It might be two.

You know, the other first need that - that might be multiple institutions. So you need to have sufficient flexibility in the process that what you're looking at is you're going to see the financial instruments that document that amount of money.

MR. NIEH: So just to take this one step further, again, I'm an engineer but I do have a business degree so this stuff's not exactly foreign to me.

How does this - where do these things line up with this checklist here and where does - what item in that -

MR. J. MATTHEWS: Okay. So loans committed by one or more qualified financial institutions.

MR. NIEH: Again, I'm only asking just to really understand because we have to task after this. We have to go back and kind of write down kind of what -

MR. J. MATTHEWS: And then either - and then equity either funded or committed in a manner acceptable to the qualified financial institution - escrows, guarantees, letters of credit.

So these are just examples of loans that would be committed by a qualified financial institution.

MR. NIEH: This would be item which one? Item one?

MR. J. MATTHEWS: No. Item three. Well, item one is one or more qualified financial institutions will provide funding that when combined with equity either already paid or committed as adequate complete construction and commence operation.

MR. NIEH: And the list would include perhaps one or more.

MR. J. MATTHEWS: And but three - well, I guess that also says the - it talks about the legal and financial relationships. That's the documents, the credit agreement, et cetera, are identified.

But then it's loans committed or equity either funded. And so, you know, your PPA collateral is probably a letter of credit. Your decommissioning fund collateral is probably a letter of credit.

Your working capital is a loan or a line of credit. Your debt service reserve is a funded account so it's - it's in escrow.

MR. NIEH: I guess - we don't have to go through to read the thing - exhaustion here but I just wonder, in my mind I do think that this could be a possible area of further dialogue. Do we - as we talk about this is just what does the back end of this proposal look like?

MR. REPKA: And I think different applicants may have different views and that license condition might vary from case to case.

But the point is you go back to what is it that you need to find to license the plant and to the extent you need to, you know, if there's - you need - you know, the regulation says you have to have construction costs, okay.

So this is intended to document that construction costs will be available. You know, if there's anything about the source of the construction costs that's relevant to the licensing decision, like it needs to be an investment grade institution, that needs to be captured in a condition with a verifiable document.

The idea is to take the discretion out of the process later.

MR. NIEH: And kind of where I'm heading with this is that, again, you - that you've taken the STP circumstance and look at it and said hey, this is a generically applicable situation here and I think that going forward if this were a proposal that the Commission would adopt as an implement I think it would be better to have something really predictable on the back end that any reviewer from the NRC could kind of go out and say these are the things I'm going to look at to verify that the license condition was met. Again, we don't have to solve that here today but that's -

MS. GINSBERG: But just to add to that, I think you'll have broad categories. You won't have very specific criteria. It's broad categories of criteria from which then the condition will be fashioned.

MR. MAYFIELD: It does strike me that what's - the proposed ranges of things to the Commission. They choose one and if they chose, you know, said yes, they find a license condition an acceptable vehicle then I suspect we're going to be back to talk about -

MS. GINSBERG: Further dialogue.

MR. MAYFIELD: - specific implementation approaches whether it's through an NEI approach that the staff can review and endorse or provide your own guidance.

But there's a presumption there that the Commission's going to ultimately come down and say yes, we agree with the license condition.

So but I think there would be a lot of specifics and accept that those may be different a bit for each of the applicants that would choose to go down this path. But I think there's probably a two-step process, first of all, to make sure the

Commission buys into this.

MS. KIRKWOOD: You mentioned that there was - you mentioned that in a project finance model there are these binding contracts and that that's actually a higher level of assurance - really, the financial viability of the project than up-front funding.

Would it be possible to put a license -

MR. HANSEN: Not up-front funding. I said an up-front undertaking that you could get the funding if you wanted to.

MS. KIRKWOOD: Okay. But -

MR. HANSEN: Up-front capacity.

MS. KIRKWOOD: I understand what you're saying.

MR. HANSEN: Ability plus commitment beats just ability.

MS. KIRKWOOD: Would it be possible to sort of along the same lines that PFS license conditions had the sample contracts in the license condition, would those type of binding commitment contracts be possible to put into the license condition that there will be contracts among the lenders that will include the following -

MR. HANSEN: Not the actual contracts that they haven't negotiated yet. Some reference to the kind of contract, I would think so. Or a specific return on -

MS. KIRKWOOD: Not the standard thing that you could sort of -

MR. J. MATTHEWS: These are just the nature of the commitment itself.

MR. HANSEN: Sure. Well, the nature - the nature of the commitment is a loan from a qualified financial institution. Now, that's going to be documented in a credit agreement, a security agreement, a note and all of that. And, you know, and they're going to be of various types because there will also be letters of credit. There will also be escrow accounts that are held by the collateral bank agent.

So, you know, to try and - to try and give example or provide example documents I think opens the door to a pretty big issue because you just - the difficulty of trying to cover everything would be massive.

MS. UTTAL: Yes, but if the staff decided that reasonable assurance required a certain clause be in the contract then -

MR. J. MATTHEWS: What do you have in

mind? I mean, what kind of clause is -

MS. UTTAL: I have nothing in mind, John. But if the staff were to decide that reasonable assurance required a clause, a specific clause or several specific clauses, to be in the contract that it's not unheard of for the staff to, in the financial area, put such a requirement in as a license condition. I don't think it's unheard of in the transfer mechanism.

MR. T. MATTHEWS: It's certainly more manageable than a form of an agreement where you're talking about a project this large, that's right, and I think it's what you're asking.

MS. KIRKWOOD: Yes. Well, I guess what I understood was part of the reason why we should have more faith in the product finance model is these binding commitments and so I'm looking to say well, how would we verify it.

We were trying to make this - all this material up front - how would we put that into the license now to ensure that this project finance model follows the typical project finance model.

MR. HANSEN: Well, if you're just going to - final thought - if the concern is that those contracts be legally binding rather than trying to come up with language that - you would be comfortable that that language would make it legally binding because I don't think that's possible because there will be some other language somewhere else undermining it.

But you just say the expectation would be that this closing would be supported by industry standard legal opinions confirming the validity and enforceability of the contract, something like that.

And I don't know it will cause heartburn because no deal will close without those kinds of opinions on the table.

MS. ROMA: Sara, just to add to the question, the PFS contract is only a couple pages long and it was just a sample contract and tables were never constructed so it was never actually used.

But by comparison the similar documents you're talking about would be hundreds of pages and every financial institution put in its own boilerplate language of things that you guys would need to reinspect.

MS. KIRKWOOD: Right. I guess - well, yes. That sort of illustrates, I mean, one of my concerns. When you look at the PFS case the Commission specifically told the staff that they needed to put the sample contracts in the -

MS. ROMA: But I think you can look at it conversely and say, you know, the issue that was just brought up if you say what specific terms do we want to see in these contracts that can be incorporated very easily into it.

MR. J. MATTHEWS: I guess that's what I'm - had a problem is I'm not sure that this agency really needs to be in the business of trying to - I mean, articulate terms in the criteria.

I mean, the only thing I can think of that when - obviously, you're not going to be evaluating the interest rate or the timing of repayments. I mean, there's going to be security interests and rights to - rights to the project and they're going to have to be written in such a way that the lenders understand that they can't exercise those security rights, take possession of the project and take control of the license without first getting the NRC's agreement.

So it seems to me that that would be the one area where the NRC might have a legitimate interest in the terms of the agreements. But other than that, it just seems -

MS. UTTAL: John, I don't think we're down to where you can decide sitting at this table what we're interested in or not interested in.

So I was thinking if there's any reason for you to parse out what the NRC's going to be interested in.

MR. J. MATTHEWS: So maybe the legal opinions - maybe the legal opinions was the best idea. I just -

MS. KIRKWOOD: I'm looking for something that we can put into it that would make it - I mean, assuming that you buy the theory behind the regulations that we need to see that there's sufficient funds then something that would make it clear that this has sufficient funds, then maybe I don't care who the investors are.

You know, you just make sure that there's sufficient funds. And then my other thought along those lines this just came up -

MS. UTTAL: Sufficient funds and they're good for it.

MS. KIRKWOOD: Right. And I think I may have just gotten confused in the last conversation but you were saying something about how they wouldn't want to go to closing until they saw some inspection report from us.

And I guess I want to just talk about the timing of us closing this license condition because I thought the license condition model was that it would close after you went to project finance closing.

But were you suggesting that it wouldn't - I don't want to - I want to make sure that we don't come up with a process that doesn't actually work, you know -

MR. HANSEN: We were sort of debating with ourselves. It's clear that the lenders are not going to put a penny onto the table until they're comfortable the project company has the right to use that money to build the project.

And so that it avoid as a situation that there's some uncertainty that continues, you know. For instance, your condition were you must have financial close and disburse at least a million dollars before we will get COL, that deal will never happen, regardless of how encouraging, you know, where the banks come and meet with you and you say oh, yes, we're almost certainly going to be there - of course, we reserve the right to make our own decision.

The Commission could always change its mind. It won't happen. What I was thinking before that if you had, you know, it's just so helpful to have some piece of paper that they can check their own box and say ah, yes, they said it was okay.

If you said well, actually the piece of paper isn't enough - it has to be the piece of paper plus something if that something is - something is completely in the control of the banks like the fact of their having disbursed then I think that probably would work.

But we've got to be careful not to build in chicken and egg problems that cause people to go crazy and that don't work.

MR. NIEH: And can I add to it ? I think we talked about this before and I agree with Mike that depending on what the Commission ultimately decides if it doesn't meet all the license condition I do think some of the details will need to be sorted out especially on the back end of the closing as far as the time it takes and what the NRC would look to do its confirmatory review.

MS. GINSBERG: Yes. That's an important feature of this and in the interests of doing something helpful we would not want to put ourselves in a position - deficit position.

MR. TURTIL: As Ho is saying, I'm thinking of the details on the back end as staff is reviewing these kinds of documents. But we're dealing with them on the front end in terms of detail and are we, you know, you're looking for an avenue to, like, let's put that - let's, you know, chicken egg, egg chicken. Let's put that on the back end unless there's a little more detail I guess within that kind of license condition.

The staff may end up finding itself in the same situation, again, looking for details of which we haven't defined until the first one comes along and we say well, where are those contract conditions.

So we'll find ourselves kind of, in a sense, if this license condition concept goes forward I think the more detail in there is better for staff clarification, for everyone's understanding before finality and such. Does that - does that make sense? I mean, I just think that would help close it.

MR. MAYFIELD: So if we go back to Anneliese's concern about adequate opportunity for stakeholders to engage it strikes me that if the Commission told us to go forth and further explore a license condition option then that's where we would begin to start a dialogue, look to the industry to engage on this and then begin to flesh out exactly what a viable license condition and subsequent inspection approach would look like and there, I think, you would be out for additional stakeholder engagement by definition.

But there's a presumption in all this that the license condition approach is going to be something that the Commission tells us to further approach.

MS. GINSBERG: Yes. Let me just make a cautionary statement and that is in the interest of suggesting that this be an extraordinarily robust license condition, I also don't want to suggest that it's actually a higher standard than otherwise would be applied.

So I think we need to be very careful about defining reasonable assurance in both contexts.

MR. REPKA: This is why I agree. I call it a robust process that the license condition is very specific.

MR. MAYFIELD: Do you want to come back? Sara, do have anything else?

MS. KIRKWOOD: No, I'm done and I don't really want to say anything that would sound like I disagree with you.

MR. MAYFIELD: Why not?

MS. KIRKWOOD: Because I'd agree that

there may be more opportunity for a stakeholder involvement but I think some of the details are important to figuring out whether or not the license condition is a viable approach and that's where I want to - what I think I -

MR. MAYFIELD: Michael?

MR. SPENCER: Yes. I was going to ask some questions about licensing. I'm not an economist. I'm a financial person. I notice that some of the licenses will be two sets of licensee issues.

One talks about qualified investors and qualified financial institutions and the other talks about qualified financial institutions and it gives various credit ratings, and a question I have is let's say that you have an institution that is willing to commit to providing several billion dollars of equity. Is having this certain credit rating alone enough to guarantee that that company is able to provide that amount of money?

MR. J. MATTHEWS: No, because nothing's ever guaranteed but that's not the standard in the regulation. The standard in the regulation is reasonable assurance and, quite frankly, I think you could probably get reasonable assurance out of the fact that a bank is willing to sign an instrument that they're loaning $2 billion is a pretty good indication that they're - they've got the wherewithal to do it.

But if they also - what we've defined is a credit rating that is a minimum credit rating for that qualified institution which is single A or better from Standard and Poor's and A-2 or better from Moody's and both of those are credit ratings that are two notches above investment grade, one notch above the credit rating required to give a self-guarantee under NRC's regulations in Part 30 Appendix C for decommissioning funding assurance.

So in order for a company on its own to provide reasonable assurance of the availability of funds for decommissioning, the credit rating criteria there - really, the essential test is that you have A minus or better or A-3 or better in the existing NRC regulations for decommissioning funding.

So this is one rating higher and they're defined as essentially institutions that have low credit risk and strong capability of financial wherewithal.

Let me make sure I'm quoting that correctly. Low credit risk and strong capacity to meet financial commitments with only some susceptibility to the lender to be impacted by adverse economic conditions or changed circumstances.

So it's a pretty solid rating for a financial institution.

MR. SPENCER: Okay. And - well, financial in terms of for an equity investor too?

MR. J. MATTHEWS: Well, and we've gone round and round on what that ought to be and I think we really think that there should be flexibility in the kind of equity participation and I really think that the lenders are going to impose pretty high standards on the equity contributions.

So there's a - you know, I think it's likely a lot of these projects, they're going to insist upon a lot of cash or they're going insist upon equity commitments that come from extremely well-qualified entities.

But the possibility is that there's different kinds of entities. So, you know, I think that the criteria in the NEI proposal is that you simply rely upon the fact that it's an equity commitment that the financial institution is willing to accept.

And if they're willing to accept it as, you know, part of this package and they're the ones putting the bulk of the money on the table then it ought to be good enough. And again, the standard here is reasonable assurance, not guarantee.

MR. HANSEN: If I could build on that a little bit, there's a difference between debt and equity.

Fundamentally, the importance of the credit rating is when there's a difference in time between when an institution makes its commitment and when it's going to perform, right. So, you know, if we've got a promise today, well, how good is that promise and how much can we rely on it.

If, for instance, they make the promise and they fund up front, we're done. We don't really need to worry about - their credit rating can go to hell in a hand basket. Doesn't matter. We've got the money now.

Now, typically, in these projects the debt wants to see the equity in first or maybe pro rata in which case they worry a lot about the credit quality of the equity investors.

But the - something as simple as a credit rating on the equity may be a problem. For instance, a lot of money these days is coming from large private equity funds.

Well, none of them have credit ratings.

They don't borrow money. They don't need credit ratings. They are money, right.

So technically they'd have a problem. I've run into that in the DOE loan guarantee program context where, you know, these guys didn't have a rating because they didn't need it.

But the - so I guess I - the point that I - I think a different presumption may apply for your banks or equity - the debt investors than it would for equity and you could have the same - well, you would have the same concern, I suppose, that the banks would.

There's pretty much an alignment of interests that if there are credit issues with the equity, well, then fine. Then it needs to be up front or it needs to be supported by a letter of credit or whatever and I - given that your standard is reasonable assurance that would be an awfully faint standard for any bank making the investment.

I think you can rest pretty comfortable that their standards are going to be higher. So if it's okay for the bank it would be a little shocking that it weren't for you.

MR. J. MATTHEWS: And that's why we propose to just simply rely upon if it's acceptable to the lenders then it ought to be acceptable.

MR. T. MATTHEWS: Rely on the process that it's acceptable to the banks as evidence.

MR. SPENCER: I have a question on the license condition. The license condition mentions lenders and, you know, there would always be a lender independently. If there are multiple lenders would there be more than one NRC lending condition?

MR. HANSEN: As you're saying, negotiable point. Typically no, but I can give you contrary examples.

MR. SPENCER: Okay. So the - essentially the cost of construction in the license condition is set by the lender's engineer's estimate. I'm just wondering whether there are any multiple estimates of multiple engineers, potential.

MR. HANSEN: I guess what there might typically be would be would be some interplay between the lender's engineer and the owner's engineer.

So you would tend to have at least a bit of a dialogue on the engineering front. But at the end of the day there will be an agreed number and it'll get prodded and pushed at most from a lot of different perspectives. But they're not going to be - by the time we get to closing there will be one agreed number and a budget to match.

MR. SPENCER: Okay. Another question. The license condition is based on the lender's independent engineer's estimate of construction costs.

The NRC construction cost estimate from licensing is a part of the license condition. So do you think that's not relevant in this case or that the NRC's estimate of construction costs at the time of licensing it doesn't play into the license condition as far as I can tell. So would you say that's not relevant to your proposed proposal?

MR. J. MATTHEWS: I guess my hope was to take credit for the fact that the project finance requires a lot more than just the simple cost estimate that the NRC requires, that it also includes contingency and various other requirements and so it's always going to be higher.

But I suppose we could write into the condition a requirement that it be not less than the licensee's cost estimate and reviewed by the NRC staff, I mean, because it is always going to be higher.

MR. SPENCER: Okay.

MS. KIRKWOOD: Sort of, I guess, playing off of Ellen's that we not increase the requirements why couldn't you just meet at the NRC cost estimate?

MR. REPKA: Could be.

MR. J. MATTHEWS: My thought was to address Ronaldo's concern that you issue a COL and it's out there and suddenly financial commitments or conditions are right and we want to start building at South Texas project in 2022.

You know, I think costs are going to be a little bit different in 2022 than they were in 2012 or 2013. So it gives them protection that the cost estimate is going to be reasonable at the time the condition is implemented.

MR. SPENCER: One more question. For license condition it talks about credit ratings, talks - mentions comparable international standards so it says that you must meet this credit rating community's or Standard and Poor's or a rating being under comparable international standards.

Are these things - that if you were talking about a specific licensee are these things that could be spelled out ahead of time?

MS. GINSBERG: I think the answer is yes.

MR. SPENCER: Okay.

MR. J. MATTHEWS: Probably yes. We kind of wrote a generic - the thought was maybe something like Korean Export-Import Bank. I don't - I don't know if they have an S&P rating or a Moody's rating.

But I've got to believe that a bank backed by the government of Korea is probably good enough for the reasonable assurance test.

MS. CUBBAGE: That clarity certainly helps make it ministerial to verify the end.

MR. J. MATTHEWS: I mean, we'd have to go and research all the likely export credit agencies. It's probably Korea Ex-Im, XE --

MR. HANSEN: It's probably a two-step process, right.

(Simultaneous speaking.)

MR. HANSEN: It's the rating of the government, that confidence that we see these carries the sovereign undertaking of the government but with a sovereign rating.

MR. J. MATTHEWS: Do all these - all these countries take S&P or Moody's ratings, don't they? A sovereign bank?

MR. HANSEN: I've never checked but yes, yes. Sure. Sure.

MR. SPENCER: In principle it can be sprung up. Yes.

MR. J. MATTHEWS: Yes. We can do more to

instruct that.

MS. GINSBERG: And the idea just in providing this was so that it wasn't just a hypothetical sort of theoretical idea that we put something on paper.

So I think going to Ho's point, if this needs refinement, if the agency has some views we're certainly amenable to further discussion and we'll look forward to that once we get the threshold issue addressed by the Commission.

MR. J. MATTHEWS: I mean, we intentionally put the reference to international standards in there just as a placeholder for the issues so that it would get dealt with.

MR. MAYFIELD: Anybody else from the staff? Then I've hijacked Russ' meeting once again. So at that point, I'm going to turn it back to Russ.

MR. CHAZELL: Thanks, Mike. Well, I'd just like to open this up to public comments now. Are there - is there anyone on the phone that would like to comment? Is there anyone still on the phone? Okay. We're listening.

MR. BECKER: We're here.

MR. CHAZELL: Okay. We're listening.

PARTICIPANT: I don't have any comments or questions.

MR. CHAZELL: Okay. Anyone in the room? I don't think there's anybody from the public here.

MR. FREEBAIRN: Yes.

MR. CHAZELL: Okay.

MR. FREEBAIRN: I'm Bill Freebairn with Platts. Just a quick question for NRC. What in fact is the next step and it sounds like you're going to go to the Commission. In what form might that take?

MR. MAYFIELD: The expectation is we will prepare in the coming couple of months a paper that we will send to the Commission and I don't want to presume right now whether that will be a notation vote paper or an information paper but the expectation is we will have specific communication with the Commission and move that forward.

MR. FREEBAIRN: Do you expect it to include a recommended course of action?

MR. MAYFIELD: You're asking a very good question and I don't want to presume too much. Quit dancing around it.

Yes, the expectation is that we will send - at least today the expectation is we will send forward a notation vote paper to the Commission with a recommended course of action.

That's the expectation today, January 8th, and we're a couple of months downstream.

MR. NIEH: We are going to look at the issue. If there's a matter of Commission policy we're going to write it down and sum it up to the Commission and if there is a recommended staff action the papers typically include that as well. But at this point, I agree with Mike.

I don't think we're there yet from the discussion today but I think, again, the dialogue here was very helpful in better understanding the proposal in the eyes of the agency.

MR. FREEBAIRN: And is it - it was unclear to me whether this is going to require changing NRC regulations and I'm guessing you guys are not going to pursue that.

MR. MAYFIELD: We are not - we are not in a position to answer that today.

MR. FREEBAIRN: But that issue would be addressed probably?

MR. MAYFIELD: That would - I think when you look at presenting to Commission, assuming that's the direction we go, a range of options, rule making is a potential option. But where that would go it's way too early to presume.

MR. J. MATTHEWS: Can I ask a follow-up on that? Will the issue of whether or not existing regulations allow the license condition to be an issue that will be put to the Commission to decide or is that something that OGC will take - will render an opinion on or -

MR. MAYFIELD: I think it's a fair question and it's about two months premature. That's it.

We're in the throes of gathering information to support a dialogue among the staff which, of course, includes counsel, even though Sara disagrees with me. Routine.

(Laughter.)

MR. CHAZELL: All right. Anyone else? Well, I thank everybody very much for your attendance today and that concludes our meeting.

(Whereupon, the above-entitled meeting concluded at 11:27 a.m.)

# CERTIFICATE

This is to certify that the attached proceedings before the United States Nuclear Regulatory Commission

Proceeding: Financial Qualifications for Combined License Applicants--Public Meeting

Docket Number: n/a

Location: Rockville, Maryland

were held as herein appears, and that this is the original transcript thereof for the file of the United States Nuclear Regulatory Commission taken and thereafter reduced to typewriting under my direction and that said transcript is a true and accurate record of the proceedings.

Neal R. Gross

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